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Hendriks, Frederick

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London

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A Plan

FOR ITS IMMEDIATE EXTENSION IN ENGLAND.

IN CONNECTION WITH THE

International Coinage of France

AND OTHER COUNTRIES.

BY

FREDERICK HENDRIKS,

Member of the Council of the Statistical Society of London, Honorary Corresponding Member of the Economic Society of Madrid, &c.

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DECIMAL COINAGE:—*A plan for its immediate extenſion in England, in connection with the* INTERNATIONAL COINAGE *of France and other countries.*

By FREDERICK HENDRIKS, *Member of the Council of the Statiſtical Society of London, Honorary Correſponding Member of the Economic Society of Madrid, &c.*

In the following pages it is propoſed to give a brief, but, it is hoped, ſufficiently ſuccinct, outline of an enquiry into ſome intereſting queſtions of the day, relating to:—

I.—International Coinage generally, and the ſpecial poſition of *France* with reſpect to her own currency, and to her influence and intereſt in obtaining the adoption of a ſingle ſtandard of gold, and of a coinage upon a baſis ſuited to the joint requirements of the chief nations of Europe.

II.—The preſent poſition of the Decimal ſyſtem of coinage in *England*, and the favourable opportunity which now preſents itſelf for carrying into effect a practical ſcheme for decimalizing the pound below the florin, and at the ſame time making our coinage really international.

I.

The adoption of an International coinage, by the common conſent of nations intereſted in the project, is by no means the

Utopian dream of mere theorizers, which thoſe who have taken little notice of what is being accompliſhed towards its realization would have the Engliſh public believe. Four governments at leaſt, France, Italy, Belgium, Switzerland, are already in complete agreement reſpecting it; and, as will preſently be ſhown, have by important meaſures, determined on only a few weeks ago, given the moſt effectual denial to thoſe who haſtily aſſumed that International Coinage was not many degrees more nigh at hand than a general international concord for a reduction of war eſtabliſhments.

Such a practical reſult as the Monetary Convention ſigned at Paris, on the 23rd December, 1865, by the four nations above referred to, has not been arrived at ſolely from the natural courſe of events in currency matters, ſuggeſting certain remedies to be applied to the diſarrangements which have ariſen in them, but has been aided and encouraged by the effect on public opinion produced by the individual labours of ſome eminent ſtateſmen, economiſts, and publiciſts, and alſo by the remarkable unanimity in wiſhing ſucceſs to any good and practicable ſcheme for a more uniform ſyſtem of coinage that has been expreſſed by men of diſtinction in the world of ſcience and in adminiſtrative poſitions in various countries.

Surveying the matter from an Engliſh point of view, it may be ſaid that ſince the time when the French government of the year 1790 propoſed that Engliſh Commiſſioners ſhould be appointed to co-operate with them in determining an appropriate ſtandard of decimal weights and meaſures intended for uſe by all nations, and including a general decimalization of the coinage, the matter went almoſt completely into oblivion, until the deſirability of the adoption of a plan for decimalizing the pound ſterling was propoſed to Parliament by the late Lord Wrotteſley in 1824. Subſequently to this date it has been ſo repeatedly diſcuſſed, that the reports of proceedings and evidence, and the pamphlets for and againſt what may be accurately called the favourite Pound and Mil ſcheme, with thoſe advocating other plans, form, when collected, quite a library in themſelves on the literature and polemics of the ſubject.

The variety of plans, each of which had its partiſans,

produced the common reſult—want of ſufficient ſtrength to carry any one of them to a ſucceſsful iſſue. This was very apparent at almoſt all of the earlieſt of the aggregate gatherings of an international character during the laſt fifteen years, on occaſions ſuch as International Exhibitions of Induſtry; International Statiſtical Congreſſes of Bruſſels, Paris, Vienna, London; Meetings at the Society of Arts, Britiſh Aſſociation, &c. It is only within the laſt few years that ſomething like a decided tone has been adopted in enforcing what ſhould, from the firſt, have been the united tactics of all who wiſh the movement to end in a really uſeful reſult, namely, that the utmoſt poſſible care ought to be taken not to diſturb the leading unit of account and of circulation—the pound ſterling—to which, for ages in accounts, and for a half-century in circulation, this country has been thoroughly accuſtomed; but to confine their endeavours to *obtaining, by reciprocity in ſlight conceſſions between nations, the eſtabliſhment of perfectly accurate, well-defined, and eaſily calculated proportions between the values of coins of our own, as compared with thoſe of other countries.*

It is ſomewhat remarkable that the firſt introducer and practical inventor of a complete ſyſtem of decimals—the illuſtrious *Simon Stevin* of Bruges—writing (or rather publiſhing) in 1585,* whilſt advocating and foretelling the decimalization of money as well as of weights and meaſures, is clear upon the inexpediency of diſturbing the cuſtomary chief units. The two following extracts are from Article VI. of his treatiſe.†

* Vide "*La Diſme, enſeignant facilement expedier par nombres entiers ſans rompuz, tous comptes ſe rencontrans aux affaires des Hommes*" This treatiſe was printed at Leyden, in 1585, in French, in the compoſite volume of Arithmetic, Algebra, &c. Its original as a ſeparate publication was the Flemiſh treatiſe, "De thiende, leerende door onghehoorde lichticheyt allen rekeningen onder den menſchen noodich vallende, afveerdighen door heele ghetalen ſonder ghebrokenen. Beſchreven door Simon Stevin van Brugghe. Tot Leyden, by Chriſtoffel Plantyn, 1585, 8vo.

† Vide page 212 of the folio edition, *Albert Girard's*, of "*Les Œuvres mathématiques de Simon Stevin.*" Leyden, Elzevier, 1634. I have compared this text of the *Diſme* with that in the 8vo. edition (1585) of the *Arithmétique*, and find the two to be identical. The *Annales Plantiniennes*" by MM. Ruelans and De Backer, which has juſt now (1866) appeared at Paris, gives 1582 as the date of Stevin's *Tafelen van Intereſt*, the arrangement of which in a decimal form was the firſt practical application of his ſyſtem of decimal fractions.

" 1. A fin de dire en brief et en général, la ſomme et contenu de ceſt article, " faut ſçavoir qu'on pautira toutes meſures, comme Longue, Humide, Seiche, " Argent, &c., par la precedente dixieſme progreſſion et chaſque fameuſe " eſpece d'icelles ſe nommera *Commencement*; comme Marc, *Commencement* " des pois, par leſquels ſe poiſe l'or et l'argent; Livre, *Commencement* des " autres pois communs; Livre de gros en Flandres, *Livre Eſterlain* en " Angleterre, Ducat en Hiſpaigne, &c., *Commencement* de monnoye.

" II. Pourtant conſiderant ſa tres grande utilité, ce ſerait choſe louable, " ſi quelcuns, comme ceux qui en attendent la plus grande commodité, " ſolicitoyent de la faire mettre en effect, à ſçavoir que joignant les " vulgaires partitions qu'il y a maintenant des Meſures, Pois, et Argent " demeurant chaſque capitale meſure. Pois, et Argent, en tous " lieux immuable! l'on ordonnast encore legitimement par les Superieurs, la " ſuſdicte dixieſme partition, à fin que chaſcun qui vouldroit la pourroit uſer.

" Il avanceroit auſſi la choſe, ſi les valeurs d'argent, principalement de ce " qui ſe forge de nouveau, fuſſent valuez ſur quelques *Primes, Secondes, Tierces, &c*

" Mais ſi tout cecy ne fuſt pas mis en œuvre, ſi toſt comme nous le " pourrions ſouhaiter, il nous contentera premierement, qu'il ſera du bien à " nos ſucceſſeurs. car il eſt certain, que ſi les hommes futurs ſont de telle " nature comme ont eſté les precedens, qu'ils ne feront pas touſiours " negligens en leur ſi grande avantage."

The preceding extract requires ſome explanation to thoſe who are not acquainted with *Stevin's* treatiſe, *viz.*: that by *Primes, Secondes, et Tierces*; he meant *tenths, hundredths*, and *thouſandths*; and, altering theſe words (as applicable to coin) to *florins*, *cents*, and *mils*, we have the entire ſyſtem, which has been introduced in England, as far as the florin, or one-tenth of a pound, and which it is contended ſhould be extended to mils and cents.

Previouſly to the introduction of the decimal metrical ſyſtem into France, accounts were kept in livres, ſols, and deniers; twenty ſols making one livre tournois, and twelve deniers one ſol. This vigeſimal and duodecimal ſyſtem had prevailed from remote antiquity in France, as it had done in England. When, however, the livre tournois, ſol, and denier came to be decimalized,—although the French ſubſtantially retained their higheſt cuſtomary unit, as we ought to retain ours, the pound ſterling,—they could only coin into francs (nearly equal to the livre tournois), and into *primes* and *ſecondes* (*i.e.*, ten centimes and one centime), whilſt we can have coins both of account and circulation, if it be deſired, repreſenting our unit, the *livre ſterling*, *primes*, *ſecondes*, and *tierces*, (*i.e.*, pounds, florins, cents, and mils.

Having theſe advantages over the ſtate of the French ſyſtem,

as it was at the time of their alteration to the decimal ſyſtem, and the further advantage of the great advance in popular education ſince then, it is difficult to imagine why the exclamation of "we want more delay and more enquiry," ſhould again and again meet thoſe who urge on the Government that the time has arrived for making good the promiſes of a decimalization of the pound below the exiſting reform, which ſtops at the florin. We do well, however, to be obſtinate, as Simon Stevin would have been, for the retention of our great unit, the pound. Its convenience above any franc, dollar, or any ſmaller unit is ineſtimable, and its chances of ſome day ſuperſeding the ſmaller units amongſt many nations are very promiſing indeed.

Returning again, from this ſlight digreſſion on principles, to what is paſſing at the preſent day, we have next to obſerve a wiſe upholding of a baſis of operation founded on principles in the recent doings of the "International Aſſociation for obtaining a Uniform Decimal Syſtem of Meaſures, Weights, and Coins." This body was eſtabliſhed in 1855, in Paris, but it is coſmopolitan, and has no ſpecial nationality of origin or of domicile. It has a moſt efficient branch in London, aided and ſupported by the influence and writings of ſuch able men as Dr. Farr, Dr. Leone Levi, Mr. Yates, Mr. Samuel Brown, the Earl of Forteſcue, Mr. James Heywood, etc., with Vice-Preſidents in twenty ſeparate foreign countries.

The Britiſh (London) branch has given its moſt active attention to the ſubject of uniform weights and meaſures, and to its exertions are mainly due the paſſing of the Act 27 and 28 Vic., c. 117, which renders permiſſive the uſe of the metric ſyſtem of weights and meaſures. In the Engliſh Report of the Council of this Aſſociation, adopted at the General Meeting, held on the 1ſt March, 1865 (pp. 14 and 15), the difficulties which are preſented by the number of different plans adopted by the advocates of decimalization in England are very candidly ſtated as follows:—

"With ſo many propoſitions afloat, each offering certain decided advantages, but all diſcordant among themſelves, and with a ſtrong party oppoſing the decimalization of the coinage in any form, it was to be expected that Her Majeſty's Government ſhould heſitate to proceed in any direction, and thus nothing whatever was done. The International Decimal Aſſociation

has as yet expounded no ſcheme of its own, but all its proceedings have indicated that no plan would be ſatisfactory unleſs it were international and decimal. A more decided courſe, however, was taken by the International Statiſtical Congreſs, at its laſt meeting at Berlin, in 1863, when they paſſed the following reſolution :—

"'That the exiſting units of money be reduced to a ſmall number. That each unit ſhall be as far as poſſible decimally ſubdivided; that the coins in uſe ſhould all be expreſſed in weights of the metric ſyſtem, and that they ſhould all be of the ſame fineneſs, namely, nine-tenths fine, and one-tenth alloy.'

"There are ſome points in this reſolution which need occaſion no difficulty. We all agree that the ſyſtems of coinage throughout the world ſhould be as few as poſſible. Let us ſee what coins have at preſent the largeſt circulation. Let us ſee which of theſe offer the greateſt convenience, not only to large financial and commercial tranſactions, but to the every-day purpoſes of humble life; and let us commend theſe ſyſtems, even if it be more than one, to univerſal acceptance. Upon the expediency of adopting the decimal diviſion there is little difference of opinion. Nor can there be any difficulty in having coins expreſſed in weights of the metric ſyſtem, as the franc is ſo many grammes of ſilver, and the napoleon ſo many grammes of gold. And then there is the uniformity of alloy. Our preſent practice is to uſe eleven-twelfths fine and one twelfth alloy in gold and ſilver. Throughout the Continent the practice is to give only nine-tenths fine and one tenth alloy. There does not appear to exiſt any practical difficulty in adopting this proportion of alloy. Would it not be poſſible to give effect to this ſuggeſtion very ſpeedily in this country, ſince it is underſtood that a new ſilver coinage will ſpeedily be required, in conſequence of the worn condition of the coins in uſe, eſpecially in the country? The Council would call the attention of the Aſſociation to this branch of the ſubject, *and would invite them to offer any ſuggeſtion which may tend to the introduction of one uniform decimal ſyſtem of coinage in all countries.*"

As a member of the Aſſociation, the writer of this paper is induced to reſpond to the invitation contained in the laſt paragraph above quoted.

A few words muſt firſt be ſtated as to the origin of the reſolution arrived at by the Berlin Congreſs, a paſſage from whoſe Report is cited by the International Aſſociation.

The International Statiſtical Congreſs, which met in London in 1860, included in our ſixth ſection, upon the recommendation of the International Aſſociation, an International Commiſſion of thirty-five gentlemen, of fifteen different countries, to report reſpecting weights and meaſures upon the following propoſitions as regards *coins* :—

"1. The ſimplicity, convenience, and efficiency of the decimal ſyſtem of money and accounts recommend it for general adoption.

"2. The Congreſs recommend the adoption, as far as poſſible, of a common degree of fineneſs in gold and ſilver coins.

"3. The Congreſs alſo recommend that the Government Delegates from all countries in which a decimal ſyſtem of coinage has been adopted be requeſted to collect all facts ſhowing whether any or what inconveniences have reſulted from ſuch changes, and how ſuch inconveniences, if found to have exiſted, have been met and remedied.

"4. That an International Commiſſion be nominated, to whom the reſults of theſe inquiries may be ſubmitted, for the purpoſe of preparing a Report for the next Congreſs on the actual ſyſtems in uſe, and on the beſt means of overcoming the obſtacles that may exiſt in any country to the eſtabliſhment of the propoſed changes."

The next Congreſs (above referred to) was held at Berlin, in September, 1863. The International Commiſſion's Report was very extenſive, embracing queſtions as to weights and meaſures as well as coins, and occupies nearly thirty-three octavo pages. The moſt important paſſages in its recommendations reſpecting coinage are the following :—

(1). *A ſingle ſtandard recommended.**

"It has been propoſed to make both gold and ſilver ſtandards of value for all countries, or to have a double ſtandard; but the great objection to this is that the ſtandard would then be affected by variations in the value of two ſtandards inſtead of one. And, moreover, if either metal be cheapened when both are made legal tender, ſuppoſe anything to happen which may reduce the value of either, every one who has a debt to diſcharge will prefer paying in the cheaper metal. In the United Kingdom there are both a gold, ſilver, and copper unit—the pound, the ſhilling, and the penny—but the ſilver and the copper coins are only ſubſidiary coins, and it is fixed by law that each ſilver coin muſt contain a certain quantity of ſilver, and exchange or be equivalent to a fixed quantity of gold. A ſhilling always contains the ſame quantity of ſilver, and twenty ſhillings are always equivalent to one ſovereign. But to prevent the ſilver being melted in caſe of riſe in value, the ſilver for which the gold ſovereign may be exchanged would not in reality purchaſe the quantity of gold contained in the ſovereign. The ſame regulations exiſt as to the copper coinage as regards ſilver.

"Another difficulty in eſtabliſhing uniformity in the coinage of nations is the difference in the alloy. Both gold and ſilver, when pure, are very ſoft and eaſily worn away by uſe, and therefore a certain quantity of copper is added to give theſe metals the requiſite hardneſs. In the United Kingdom one-twelfth of alloy is uſed, that is a pound troy of gold conſiſts of twenty-two carats, in twenty-four parts fine and two of alloy, or 917 fine. A pound troy of ſilver conſiſts of 11 ounces 2 pennyweights of pure ſilver and 18 pennyweights of alloy, or 925 fine. In other countries the amount of alloy uſed is different. In France and the United States of America the proportion is nine tenths pure metal to one-tenth alloy. This is a queſtion purely chemical. In both ſilver and gold the relation of nine-tenths and one-tenth is certainly as good, if not better, than eleven-twelfths and one-twelfth, and the only difficulty in changing the alloy in gold is that of

* This and the following headings of extracts are interpolations of our own, for the ſake of diſtinctness, there being of courſe paſſages omitted, as the report is too long for quotation in full.

maintaining in circulation, at the same time, the coinage of two descriptions of fineness, whilst there would be some difference in the colour which an additional quantity of alloy gives to the gold coin. We are glad to learn from Mr. Graham, Master of the Mint of the United Kingdom, that no practical difficulty would be experienced in agreeing to the common rule of one-tenth alloy, and that in fact, at the Mint at Hong Kong, the new dollar now being coined for use in the Chinese market will be nine-tenths fine. The resolution adopted at the last Congress on this part of the question has thus received a marked illustration of its practical character."

(b). *A metrical basis suggested.*

"That as the metric system of weights and measures is gradually extending, it is evidently of importance that the value of coins should be expressed in weights of the system likely to be most popular and best understood.

"The advantage which it has, in common with any other system which might be adopted for one universal currency, would be the saving in the cost and risk of transfer of the precious metals from one country to another, and of the cost of constant re-coinage: the rapidity of transfer of coins wherever needed by the exigencies of trade or finance without the delay of conversion into a new currency, and the time gained in general and commercial education.

"Lastly, a great facility that would be given by this system for the study of the comparative statistics of all countries."

(c). *A practical scheme of International Coinage recommended, the accustomed units of great countries being retained, but converted by small alterations in weight, into readily-exchangeable values.*

"But notwithstanding all these arguments in its favour, we cannot hope to overcome the obstacles to the universal adoption of the metrical or any one system of money. We may, however, venture to propose an alternative somewhat in advance of the conclusions of the last Congress. Having agreed that the unit of money in each country should be decimally subdivided, we might urge the importance of such slight alterations in the weight of the pure metal in current coins as would bring them under the metrical system of weights, and would render them, by a simple multiplication or division, exchangeable for current coins of other countries containing corresponding weights of pure metal—gold or silver. Thus, as an example, the English sovereign in gold, equal to 20 shillings in silver, contains 123·274 troy grains, with 1-12th alloy. The pure gold consequently is 113·002 troy grains = 7·322 grammes. The gold napoleon of France, equal to 20 francs in silver, weighs 6·452 grammes, with 1-10th alloy, containing 5·807 grammes pure gold, consequently—

5·807 : 20 : : 7·322 : 25·22

"To reduce the English sovereign to a weight of pure gold exactly equivalent to 25 francs in silver—

		Grammes.	Grammes.
25·22	: 25 : :	7·322	: 7·258

a reduction of about 64 milligrammes would be necessary.

"On the other hand, to raise 1½ napoleon in gold to the exact weight of the English sovereign 5·807 × 1½ = 7·258 would require an addition of 64 milligrammes of pure gold to the weight.

"Admitting that, to suit the customs or convenience of different nations, more than one unit of money is desirable, we may yet agree to restrict them to a very small number, and that these should be convertible, by a simple calculation, from one into the other. Thus, the franc, the florin, the dollar, and the pound sterling might be allowed as units, the coins to be in all cases nine-tenths fine, and decimally subdivided, and the weight of pure metal to be the equivalent weights in the metric system. By multiplication or division by a single figure, and the proper placing of the decimal point, values to any amount in one of these monetary systems might then be reduced to the equivalent values in any other of them, as shown in the following comparison:—

Coins.	Weight.	Weight of pure metal.	Equivalent Value			
			£1 sterling.	1 Dollar.	1 Florin.	1 Franc.
			Multiplied by			
	Grammes.	Grammes.				
Franc	5·	4·5	·04	·2	·4	—
Florin	12·5	11·25	·1	·5	...	$\frac{1}{4}$
Dollar	25·	22·5	·2	...	2·	5·
£ sterling: (in gold, to be adjusted) ...		...	...	5·	10·	$\frac{100}{9}$

(d). *Concluding recommendations as regards money, submitted for adoption or discussion by the Congress.*

"1. That the Congress recommends that the existing units of money be reduced to a small number, that each unit should be decimally subdivided, and that the coins in use should all be expressed in weights of the metric system, and should all be of the same degree of fineness, namely $\frac{9}{10}$ths fine and $\frac{1}{10}$ alloy, and should be current by law, and interchangeable in all the countries agreeing to this proposition.

"2. That from their extensive use in commerce and in monetary transactions, the pound sterling, the dollar, the florin, and the franc seem the units most desirable to be recommended for universal adoption, each country not possessing one of these in actual use selecting the one most convenient for its own use.

"3. That in regard to the silver standard, the dollar be made equal to 5 francs, and the florin to 2½ francs, and the franc as at present being 5 grammes in weight, and containing 4·5 grammes of pure silver.

4. That the different Governments be invited to send to a Special Congress, delegates authorized to confider and report what should be, in the metric system, the relative weights of the gold and the silver coins, and to arrange the details by which the monetary system of different countries may be fixed, and the coins made current and interchangeable according to the terms of the preceding propositions."

(e). *Resolutions as amended and finally carried by the International Congress at Berlin.*

"1. That the Congress recommends that the existing units of money be reduced to a small number: that each unit should be, as far as possible,

decimally ſubdivided; and that the coins in uſe ſhall all be expreſſed in weights of the metric ſyſtem, and ſhould all be of the ſame degree of fineness—namely, nine-tenths fine and one-tenth alloy.

"2. That the different Governments be invited to ſend to a Special Congreſs delegates authorized to conſider and report what ſhould be the relative weights, in the metrical ſyſtem, of the gold and ſilver coins, and to arrange the details by which the monetary ſyſtem of different countries may be fixed, according to the terms of the preceding propoſitions.

"3. That it being of the greateſt importance that the different Governments ſhould appoint the propoſed Commiſſion as ſoon as poſſible, this ſection recommends the Congreſs to make a ſpecial communication of the above reſolutions to the different Governments."

At the date of theſe Reſolutions, the International Commiſſion was further in a poſition to point out that the German Cuſtoms-Union States had in 1857 entered into a convention giving a preciſe baſis of interchangeable value to Pruſſian, Auſtrian, and other German coinage, including the new Verein thaler common to all the States. The advances made in 1858 by the Government of the United States for a mutual arrangement of the coinage of the two nations upon a decimal baſis, ſo as to ſecure a convenient equation of commenſurable value between their reſpective units of coinage; and laſtly, the fact that Ruſſia and the Scandinavian powers had expreſſed their willingneſs to co-operate with other countries, were alſo referred to.

If the queſtion be again mooted at the next Meeting of the International Statiſtical Congreſs, which will take place at Florence in the autumn of the preſent year (1866), there will be great reaſon for congratulation that the proſpects of a further extenſion of the principles they uphold are brightening, as is ſatisfactorily proved by the important Monetary Convention, ſigned at Paris on the 23rd December, 1865, by the Delegates of the French, Italian, Belgian and Swiſs Governments. A ſpecial clauſe of this Convention reſerves to any other country the right of adheſion to its conditions. Much importance is rightly attached to the future working of this clauſe, and the French Government in their recent annual Blue Book,—"*Expoſé de la ſituation de l'Empire pour* 1865,"—ſtate that this clauſe is a reſponſe to the ſtrong deſire manifeſted at this "international conference," which was not without its influence on the happy iſſue of the negotiation, and that the contracting powers would, in fact, ſee with the livelieſt ſatisfaction, this monetary union—reſtricted at preſent to four ſtates—

become the germ of a vaſter union, and thus favour the generalization of a uniform ſyſtem of weights, meaſures, and coins.

From the Meſſage dated 2nd February, 1866, of the Swiſs Federal Council to the High Federal Aſſembly at Berne, with reference to this Monetary Convention, it appears that it was at the outſet reſolved that the conference ſhould diſcuſs firſtly, the ſilver coinage, and eſpecially the ſub-diviſions of the 5-franc piece; ſecondly the gold coinage; and thirdly the queſtion of the ſtandard. The Swiſs Commiſſioners have deemed it incumbent upon them to explain why the treaty has only included the firſt two ſubjects and is ſilent on the third.

It appears that the Belgian delegates wiſhed for a diſcuſſion on the ſtandard, and ſpoke in favour of a *ſingle gold ſtandard* to ſuperſede their double gold and ſilver ſtandard adopted in June, 1861. The Belgians had, it ſhould be obſerved, demonetized their gold coinage in 1850, and adopted the ſingle ſilver ſtandard. They endeavoured in vain to prevent the influx of the gold coinage of France and the withdrawal from circulation of their own ſilver coinage. But the diſcoveries of gold in California and Auſtralia, and the invaſion of that metal into the daily tranſactions of all continental nations who had hitherto long been accuſtomed to ſettle all payments in ſilver, and the high premium on ſilver for exportation to the Eaſt and for the bullion market generally, all combined to re-act with great intenſity on the Belgian currency, and had obliged the very Miniſter of Finance, who adviſed demonetization of gold in 1850, to introduce in 1861 a repeal of that meaſure, and to place the monetary ſyſtem of his country under the ſame régime as in France, viz., the double ſtandard of the year XI.

The Italian delegates alſo declared themſelves in favour of a ſingle gold ſtandard. It ſhould be obſerved that previous to the erection of the kingdom of Italy, Sardinia had adopted the French ſyſtem of coinage, and of courſe the double ſtandard in its entirety, and on the acceſſion of Naples, Tuſcany, and Lombardy, uniformity was naturally extended to the whole kingdom.

The Swiſs delegates likewiſe gave in their adheſion to the ſingle gold ſtandard, but added that the Confederation, not being able to grapple ſingly with the queſtion, muſt wait the

initiative of the greater powers. Switzerland, it ſhould be noted, had in 1850 adopted with the French franc the ſingle ſilver ſtandard, like Belgium had done, and in 1860 was in its turn forced to reſort to the double ſtandard.

The meſſage to the Swiſs Federal Aſſembly ſtates that notwithſtanding theſe declarations made at the Conference of December last (1865), this queſtion (of the ſtandard) was not placed upon the order of the day; not, however, becauſe M. de Parieu, Preſident of the Conference, was an opponent of the ſole gold ſtandard,—he having been on the contrary long known as a defender of that ſyſtem,—but becauſe it turns upon a queſtion much controverted in France, and on the ſubject of which three parties have been formed, each having diſtinguiſhed men amongſt its adherents, and claſſed (to uſe the words of the Meſſage), as "*le parti de l'étalon d'argent, celui du double étalon, et celui de l'étalon d'or.*"

The firſt of theſe parties (it is ſtated), ſeeing nothing beyond the fine metrical definition of the franc, maintains that gold, in the law of the year XI., was ſimply (*ſubordonné*) made ſecondary to ſilver; that the depreciation of the firſt of the two metals is inevitable, and propoſes to come to the help of the ſcarcity of ſilver by a paper circulation.*

The partiſans of the double ſtandard advance that it is beneficial to uſe ſometimes one, ſometimes the other of the two metals, in order to ſatisfy monetary requirements. In this party are numbered certain bankers and ſpeculators (*agioteurs*), in bullion. The legal proportion of $15\frac{1}{2}$ to 1 between gold and ſilver allows of frequent and profitable ſpeculations in bullion and coin, which would be impoſſible if the ratio of the two metals were ſolely regulated by the laws of the market.

A third group (the party of the gold ſtandard) impreſſed—like the firſt—with the neceſſity of having a ſingle meaſure, but not wiſhing to have recourſe for that meaſure in a metal which diſappears, maintains that gold, which forms at this day

* *M. M Chevalier* is named by the Swiſs as belonging to this party. But he has modified his opinion by his advocacy of a new gold unit of coinage in the form of 10 and 5 gramme pieces. Another moſt eminent economiſt, *M. Wolowſki*, favours a double ſtandard as a uſeful compenſating balance in the reactions of price between gold and ſilver.

our monetary aliment (*provision monétaire*) and recommends itſelf by eminent advantages, alone can ſerve as the ſtandard. This group, again, branches itſelf into two parts; ſome of its partiſans rejecting the napoleon as being metrically defined by an incommenſurable fraction, and they recommend another unit, "*le gramme d'or.*"

But (the Meſſage proceeds to ſtate) this ſort of *fetiſhiſm* for the decimal ſyſtem* is condemned beforehand by the experiment made by Germany, where, by the treaty of Vienna, a gold coin was created called "*a crown*," which is no other than the tenth multiple of the *gramme* of gold. For this coin is univerſally rejected, because it does not chime in with any other known coin, and cannot be conveniently calculated. It does not ſuffice, in fact, to have a weight metrically homogeneous (*metriquement arrondi*) it is neceſſary, in addition, that a new coin ſhould be ſuſceptible of being grafted, ſo to ſpeak, upon exiſting habits, in order that it may be reduced with eaſe into the coins which have preceded it, or which ſtill have currency in neighbouring countries. In this conſiſts the great ſuperiority of the napoleon; although it is defined by a weight of grammes 6·4516 of gold, at $\frac{9}{10}$ths fine, it affords the great advantage of not cauſing any one to ſeparate himſelf from his habits of calculation, and of opening the way to an equation with the monetary units of England and of America. It would not, indeed, be impoſſible to arrive some day at a ſimple proportion between the dollar, the napoleon and the pound ſterling, marked by the numbers 5, 20, 25, by means of very inconſiderable modifications of the old units. It is a way opened in the direction of univerſal coinage, and it is towards the attainment of this end that the moſt eminent members of the third group are inclined.

Under the circumſtances of difference of opinion as to the ſtandard, it was preferred to defer its conſideration until a new

* Or, rather, for the *metric* ſyſtem, is what, doubtleſs, is meant by the authors of the Meſſage to the Swiſs Federal Aſſembly, as we all know that no nation on the continent, any more than the leading nations of America and Aſia would for one inſtant think of adverſely criticiſing the decimal ſyſtem. The condemnation intended is of what a certain member of the Inſtitute of France calls "*metromanie*," like that which ſome of our readers will recollect uſed to irritate ſo intenſely the late General Sir Charles Paſley on ſome public occaſions, when that able and ſcientific officer, and moſt conſiſtent advocate for the decimalization of the pound ſterling, had to diſcuſs the metrical ſyſtem.

commiſſion of enquiry to be appointed by the French Government ſhall firſt have reported. So far as I am informed, the Commiſſion will perhaps be ſtrongly urged to adopt a ſcheme propounded by *M. Michel Chevalier* for the introduction of a new coin, which is to weigh exactly 10 grammes of fine gold. True, this will fit in ſymmetrically with the metrical ſyſtem, at leaſt in the ideas of thoſe who miſinterpret the decimal ſyſtem as abhorring fractions of 10 and 5 as much as Dame Nature hates a vacuum. This is, however, a great miſtake, if it can reſt on no better baſis, for any numbers beſides 10 and 5, are, if (we may apply the technical term), equally concrete and homogeneous in the decimal ſyſtem.

I can ſcarcely believe it poſſible, that with all the love of ſymmetry, of unification, of working round a centre, which diſtinguiſhes the French above all nations, they will for one moment ſeriouſly entertain ſuch a propoſition, as it will require a complete remelting and recoinage of all the gold and ſilver coins of France, and also of Belgium, Italy, Switzerland, and of other countries adopting the French ſyſtem. It would be the greateſt poſſible bar to any further extenſion of that international uniform ſyſtem of coinage which the French nation, and I believe no member of it more ſo than the Emperor, is deſirous of promoting.

Some remarks recently made on this ſubject in "*La France*" newſpaper, 31ſt January, 1866, by *M. A. Polin* are both pertinent and accurate. *M. Polin* obſerves that:—

"Some very competent economiſts, ſuch as MM. *Michel Chevalier* and *Léon*, have propoſed taking as a new unit a decimal quantity of grammes of gold, and of conſtituting the junction between the monetary ſyſtem and the metric ſyſtem by this meaſure of value in gold. This novel view is eſſentially a conſiderable conceſſion to the partiſans of the gold ſtandard, ſuch as *MM. de Parieu, Levaſſeur*, and *De Puynode*, who have foreſeen the practibility of introducing pieces of 20 francs, of 10 francs, and of 5 francs in gold, to replace without inconvenience the old crowns of 5 francs, uſual coin for effecting payments in the epoch preceding the invaſion of Californian gold. But it is obvious that, in order to have a *metrical* gold coin, the *metrical* ſilver coin of the preſent ſyſtem would have to be abandoned, and the preſent franc would no longer have any decimal relation with a piece of ſay 5 grammes or 10 grammes of gold. We do not, therefore, perceive any ſerious reaſon for modifying the natural courſe of things, which ſpreads our preſent gold coin throughout Europe, and which has recently cauſed the commercial aſſembly at Frankfort to aſk for the iſſue of a German coin equivalent to our gold 20-franc piece.

"The capital queſtion is that of arriving at a perfect equation between the

25 francs French gold and the pound ſterling of 25 francs 20 cents. Engliſh. Should this equation be obtained, the approximation to each other of all European coins would appear to us aſſured by the aſcendancy of this *Anglo-French monetary alliance*, and we draw the attention of all competent and influential financial men to this deſirable combination."

There can be no doubt that if this equalization in fine gold value of the pound ſterling and of 25 francs of French gold could be accompliſhed, it would *at once* bring at leaſt 100 millions of people to the uſe of a uniform coinage, and that there would be every likelihood of that number being ſoon increaſed to 200 millions, as the other leading nations of Europe and of America would then be deſirous of joining ſuch a monetary union. Even as the matter now ſtands, the quadruple convention between France, Italy, Belgium and Switzerland brings 65 million people into cloſe agreement and better underſtanding in financial affairs. It was reported to the Federal Aſſembly at Berne on the 2nd ultimo that the Governments of the Pope and of the Netherlands, and alſo the Hanſe towns, had requeſted immediate communication as to the terms of the convention or treaty, ſo that if theſe countries and part only of Germany join it, there will be 100 million people directly affected by its proviſions, excluſive of any junction by our own country.

If England were to reſolve to entertain a proposal for union, it would not be at all neceſſary to proceed further than thoſe parts of the Convention which relate to *gold* coin. The ſilver token coins need not neceſſarily be included, although there would be no inconvenience, but the contrary, if theſe were alſo aſſimilated by the adoption after a ſhort period of notice of a thoroughly practical method of decimalizing the Pound ſterling into florins and mils, aſſimilating the new coins of account and of circulation, and preſerving all the advantages of the preſent power of binary diviſion of all our coins except the farthing, whilſt the poor would have the further benefit of 1000 new farthings or mils to the pound, inſtead of the preſent 960 farthings.

This part of the ſubject we propoſe to develope more fully in the ſecond ſection of the preſent paper. In this ſection of it, we ſhall conclude by an enquiry as to how the ſuggeſted equalization of the pound ſterling and 25 francs can be brought about with the greateſt facility, quite independently of any further decimalization of the pound, although, in point of fact,

there is no ſufficient reaſon why the two improvements ſhould not be carried out ſimultaneouſly, or nearly ſo. However this may be, there is not much room for apprehenſion that whichever is firſt accompliſhed, the other will certainly follow it in due order and in the inevitable courſe of events.

The common conſent of practical ſcientific men of all countries, in the deſirability of an international coinage, the impulſe given to an actual preſent extenſion of it by great and enlightened nations like France, Italy, Belgium, Switzerland, Germany, Holland, renders its general further adoption only a work of time. Individuals, as well as Aſſociations, ſuch as the Decimal Aſſociation,* the International Statiſtical Congreſſes, and, laſt but not leaſt, the "International Aſſociation for obtaining a uniform decimal ſyſtem of meaſures, weights, and coins," have in England moſt zealouſly and ably contended for the adoption of an international principle in coinage, but have always hitherto found ſomething like a cold ſhade ſpread itſelf over their endeavours, when the matter has come to be referred to Miniſters.

Of courſe if we are to take ſo contracted a view as did one of the two Engliſh Royal Commiſſioners on Decimal Coinage, who finally reported in 1859, that "the advantage of "an international coinage would be limited to the facility it "might afford to inexperienced (!) travellers, by enabling them "to paſs in all countries alike a coin of which they already knew "the value;" it would not, indeed, be worth while proceeding any further in the matter, as the point at iſſue would be far too trifling to care for. But when the ſame gentleman (Mr. J. G. Hubbard, M.P.†) goes on to ſtate that "for the larger purpoſes "of commerce the inſtitution of an international coinage would "yield no appreciable aſſiſtance," that "the comparatively "ſmall tranſmiſſions of the precious metals which are needed for "the rectification of the Exchanges are already made with an "eaſe and accuracy that could not be exceeded, it being "frequently even now in its own coin that a country requiring

* This aſſociation had for ſome years the advantage of the late Mr. Wm. Brown, M.P., as its chairman, who moſt actively and energetically promoted its objects both in and out of Parliament.

† See Mr. Hubbard's memorandum, embodying obſervations to accompany his ſignature of the Final Report of the Decimal Coinage Commiſſion, page 102.

"payment receives the liquidation of its claim," we begin to wonder whether his meaning is that we are to ſhut our eyes to all that is going on in the world beyond our ſhores, believe with unfaltering faith in the perfection of our Currency and Banking Laws, and receive the doctrine that we, as the greateſt mercantile nation and the moſt extenſive colonizers, can poſſibly re-iſolate ourſelves, and again become *Penitus toto diviſos orbe Britannos*.

Mr. Hubbard does, however, give certain ſuggeſtions about the "difficulty" which, "if it were ſurmounted," would enable the advantage to be conferred on the inexperienced traveller.* "The conſideration," he ſays, "of an international "coinage was one which did not fall within the terms of the "inquiry aſſigned to the Commiſſioners; but as the expecta-"tion of ſuch a ſcheme being adopted had evidently influenced "the opinions of many witneſſes in favour of a Decimal ſyſtem, "it may be well to remark that, to give reality to an inter-"national coinage it would be requiſite that the countries "included in the international coinage league ſhould have the "ſame ſtandard of value; that all their coins ſhould be "identical in form, weight, and fineneſs, and that each country "in the league ſhould have ſuch faith in the honeſty and "accuracy of the units of all the others as to warrant their "coinage being recognized equally with its own as a legal "tender. If this difficulty were ſurmounted," &c., as above.

But is the apparent difficulty real? For ſome generations back we have been uſed to Tower Hill Mintage, although in earlier ages there were ſeveral mints in other parts of the country. And yet it is no diſparagement to our Mint and to the manufacturing ſkill of its worthy Maſter, Mr. Graham, and his aſſiſtants, to ſay that other Mints can manufacture quite as truſtworthy coin. The Queen's proclamation was only iſſued laſt month for making ſovereigns coined in Auſtralia legal tender in this country. If colonial workmen can turn out coin undoubtedly genuine in weight and fineneſs, what reaſon is there to fear that the ſkilled workman of France, Germany, or Italy ſhall ever be unable to equal their performances? Are

* Sterne introduces us to a good many claſſes of travellers, and in theſe railway days, when unprotected females go abroad and write their travels, ſome additional *genera* might be added. Perhaps the type of the inexperienced traveller *does* exiſt, but he or ſhe is a rare creature.

we to suppose that the public, to say nothing of the Governments, are not alive to the necessity, and do not take every care that their coin should be of the proper model? The notion is too attenuated to argue out any further.

There remains the question how the English sovereign and the French gold 25-franc could be assimilated so that a sovereign shall be exactly worth a French 25-franc piece (when coined), and a half-sovereign 12½ francs, whilst, *vice versâ*, a napoleon, or 20 francs, would be worth exactly 16 shillings, or ⅘ths of a sovereign; a 10-franc piece 8 shillings, or ⅔ths of a sovereign; and a 5-franc gold piece 4 shillings, or ⅕th of a sovereign?

The elements of the calculation are these;—*English sovereign*, 0·917 fine; weight in grammes = 7·980855 ∴ fine gold = 7·318444035 grammes. *French napoleon* or 20-franc piece, 0·900 fine; weight in grammes = 6·45161 ∴ fine gold = 5·806449. Par of exchange £1 = 25·2079 francs.*

Every 25-francs' worth of French gold coin now contains, or, which amounts indeed to the same thing, a 25-franc gold piece (if such were coined, as we believe it will be some day), would contain; $5 \cdot 806449 + \frac{5 \cdot 806449}{4} = 7 \cdot 25806125$ grammes of pure gold.

Consequently, in order to make the sovereign equal in value to 25 francs, and the par of exchange between England and France 25 francs instead of 25·2079, one of two things would have to be done, viz:—(1) either the weight of pure gold in any given amount of English coin would have to be *diminished* by 0·8250768157 *per cent.*, or else (2) the weight of pure gold in any given amount of French coin would have to be increased by 0·8319409968 *per cent.* In other words, either (1) the sovereign would be reduced from 7·318444035 grammes or 113·002 grains troy of pure gold (at which every pound's worth of English coin has stood since 1717, 3 Geo. I.), to 7·25806125 grammes, or about 112·0677 grains troy; or else, (2) the 20-franc piece would be increased from 5·806449 grammes of pure gold (at which it has stood since the 7th Ger-

* These and the following data for calculating the weights and par of exchange are from the *Annuaire du Bureau des Longitudes*.

minal, *an* XI.), to 5·854755228 grammes, thus making the pure gold in 25 francs increase from 7·25806125 grammes to 7·318444035 grammes, the weight of the English sovereign.

Avoiding fractions of inconvenient length, it may therefore be approximately stated, that a *diminut ionof* 0·825 *per cent. in the weight of pure gold in English coin*, or an augmentation of 0·832 per cent. in the weight of pure gold in French coin, would make the par of exchange £1 = 25 francs.

An international coinage could therefore be immediately created, by reducing the amount of pure gold in the English sovereign by about ·00825 of £1, say 8¼ mils or thousandth parts, or a fraction under *two* pence in the pound.

It has been suggested that this small diminution in the pure gold value of our sovereign might in all future coinage be treated as a *seignorage on gold*, and that a charge of about two pence per pound sterling might be made by the Mint on coining bullion, and the proceeds of this seignorage carried to the credit of the national exchequer. We doubt, however, the practicability of accomplishing this, as the fixed principles of the present intrinsic value of our gold standard would be interfered with. It would be preferable to restrict the reform to the establishment of an international coinage, by equalizing the true par of exchange between the pound sterling and 25 francs. The English Mint price of new standard gold coinage, $\frac{9}{10}$ths fine, would thus be changed to about £3 17s. 1½d. (£3·857), per ounce troy. The pound troy of gold, $\frac{11}{12}$ths fine, is now coined into £46 14s. 6d. The future pound troy of gold, $\frac{9}{10}$ths fine, would be coined into £46 5s. 6d. new standard coin.

On reduction of the English standard of fineness, the new sovereign would *weigh more* than at present, viz., 8·06451 grammes instead of 7·980855. But it would contain, as above explained, *less pure gold* than at present. The ounce troy or 31·103191 grammes is now equivalent to £3 17s. 10½d. fixed Mint price. The same weight of new international standard gold would be legally *fixed* at £3 17s. 1[illegible]½d. of *new coin* (31·103191 ÷ 8·06451 = 3·857). The greater weight and less value of a given amount of new coin would be owing to the reduction in fineness from ·917 to ·200, *i.e.*, by 1·85387 per cent.

It is here necessary to explain how we justify the inference

that a seignorage would interfere with the principle upon which our gold standard depends, and that an assimilation of the British fineness of standard with that of France would interfere only temporarily with this principle, so that the alteration in fineness once made, the fixed Mint value of gold bullion would act as satisfactorily as at present.

The conventional term "English Mint *Price* of Gold" is not strictly accurate, except in a very modified and special sense. *Price*, in ordinary meaning, is variable appreciation of any commodity as measured by some other commodity; and, as all commodities rise and fall with fluctuations in supply and demand, *fixed price* is a misnomer, and it would be preferable to apply such a term as "English Mint *measure of exchange* for gold coin and bullion," to the principle of our standard, which establishes a given ratio between those two commodities, for the time being, in the same manner that 12 inches are declared to be one foot, or 3 feet one yard. The ratio is therefore arbitrary and empirical. We do not urge that it is the less expedient or politic on this account, or that it is susceptible of any great or frequent alteration, but that the small alterations now required to make an international standard are merely adjustments of ratio, which would not disturb the future self-working of the *principles* of our gold standard.

Under clause iv. of the Act 7 and 8 Vict., c. xxxii, all persons bringing gold bullion to the issue department of the Bank of England may claim notes (payable upon demand to the bearer) at the rate of £3 17s. 9d. for each *ounce* of bullion $\frac{11}{12}$ths fine. This fixed exchange or measure prevents the *home* market price of gold bullion from sinking below a certain level; for no person can buy nor will sell it at less than £3 17s. 9d. per ounce, knowing that the Bank will give that sum. And no person will buy nor can sell sovereigns at a higher price than £3 17s. 10½d. per ounce, knowing that the Bank is liable to pay its notes at the standard exchange of £3 17s. 10½d., being the rate at which the Mint delivers over to the Bank the standard gold coin of the realm in exchange for every ounce of bullion of standard fineness. This prevents any discount or premium on bullion as measured by coin, or on coin as measured by bullion, so far as the United Kingdom, in its home transactions, is concerned. Thus the standard is now maintained,

and might still be maintained, if, in order to carry out the international assimilation of standards, £3 17s., or rather, £3 and 850 mils of new standard coin were substituted, by Act of Parliament, for the £3 17s. 9d. per ounce of bullion, for which the Bank is bound to give its notes, the Queen at the same time issuing her proclamation that, at the altered international standard fineness of $\frac{9}{10}$ths instead of $\frac{11}{12}$ths, the ounce of bullion should be coined at the Mint into £3 17s. 1½d. instead of £3 17s. 10½d.

The Bank, as the public distributor of coin, would thus still obtain 1½d. per ounce difference between the exchange of coin for bullion, and forming part of the ordinary profits of the Bank after allowing for the time taken in the process of coinage. This 1½d. per ounce is not seignorage, but merely a recompense to the Bank for becoming the agents of the public in getting the bullion coined. If, in addition, the Bank were to become the agents of the Crown for levying a seignorage, although, on the one hand, a seignorage would tend towards the discouraging of melting coin into bullion, as each re-mintage would call for the levy of a fresh seignorage, the effect, on the other hand, would be a practical reduction to the extent of the seignorage in the so-called Mint price, or exchange ratio, of bullion. This is a strong reason against those urged for the policy of a seignorage, as it is of more importance to our country to retain the advantage of being the centre to which bullion converges from all quarters for subsequent re-distribution to all parts of the world, than that our coin should be artificially protected by a seignorage, reducing the frequency of its conversion into bullion for exportation.

In considering the question of a re-adjustment of the Mint Exchange or measure between coin and bullion, it must be observed that there is satisfactory historical precedent for such a course. We have remarked that the ratio of £3 17s. 10½d. per ounce is empirical. It may even turn out on enquiry that the alteration to £3 17s. 1½d. international standard fineness would be less empirical, and nearer to the real present ratio of gold, as measured by silver in the open market for bullion. The English standard until 1816 was a silver one, with the collateral alternative standard of gold coins in a fixed proportion settled by royal proclamations and Mint indentures according

to the then assumed ratio of gold to silver. Here we have ample precedent for re-adjustment, and the gold discoveries of the last 15 years appear to call for something of the kind being again considered. The £3 17s. 10½d. per ounce was originally authorized by Charles II. But the government of William and Mary increased it to a larger amount of gold coin per ounce of bullion. This, however, as shown by Sir Isaac Newton and others, was an over-estimation of gold, and made the coined guinea (for pounds were not then in existence) equal to 21s. 6d. instead of to its normal 21s. in silver. Silver coins could not, in this state of things, remain in circulation; they were melted (just as the French 5-franc pieces have been of late years), and the government of George I. (A.D. 1717) again changed to the ratio which has since prevailed. But it is no "law which altereth not," as some would fain construe it, neither is its amendment, or re-adjustment to the wants of the day, any more of a confiscation or disturbance of contracts than occurs in the imposition of any new tax or revision of fiscal arrangement which is found necessary. The imposition of income tax on funded income from Stock was a much greater disturbance of vested rights, and, notwithstanding, has been cheerfully accepted in this country.

There may be a disposition to urge that instead of our reducing our sovereign to the value and weight of 25 francs French gold coin, the latter might be increased by 0·832 per cent. in value, and in its fineness and weight made identical with the English gold coin. The answer to this is substantially that the inconveniences and difficulties would be too great. It would necessitate the calling in and recoinage, at a large expense, of the vast amount of gold which has been minted in France during the period of the practical displacement of the silver coinage. In England, on the contrary, there would be no difficulty as regards the present gold coin, as the chief part would leave a profit on recoinage, whilst the remainder is already, by current wear and tear, reduced by about the same value of pure gold, *i.e.*, *two pence* in the pound on the average, since the date of its issue from the Mint, as would nearly serve in the proposed plan to make our coin international.

Obviously in every convention all parties should be disposed to make some concession more or less nearly equivalent to the benefits they gain. There is reason to believe that if Great Britain would consent to this equalization of the sovereign to 25 francs French gold, France would adopt the British system of a single gold standard, would abolish its present alternative of a silver standard, and would coin 25-franc pieces exactly equivalent to our sovereign. The following would then immediately be the international gold coinage of *England*, *France*, *Italy*, *Belgium*, *Switzerland*, mutually interchangeable and legally current in each of the five countries, and to which most of the other European countries would soon give in their adhesion :—

	French, Italian, Belgian, Swiss.		*Equivalents in new English decimal nomenclature.*
(1.) English sovereign	= 25 francs	= 1,000 mils, or 10 florins, or	£1
(2.) Half-a-sovereign	= 12·50 ,,	= 500 ,, or 5 ,, or	£½

	French, Italian, Belgian, Swiss.	*English.*	
(3.) 25-franc gold piece	= 1 fov.	= 1,000 mils, or 10 florins, or	£1
(4.) 20 ,, ,, ,,	= 16 shls.	= 800 ,, or 8 ,, or	£⅘ or $^{8}/_{10}$
(5.) 10 ,, ,, ,,	= 8 ,,	= 400 ,, or 4 ,, or	£⅖ or $^{4}/_{10}$
(6.) 5 ,, ,, ,,	= 4 ,,	= 200 ,, or 2 ,, or	£⅕ or $^{2}/_{10}$

The adoption of the above scale for gold coinage would be the practical and easy means of establishing an international coinage, such as would recommend itself for adoption sooner or later by the leading nations in all parts of the world, without disturbing any of the accustomed chief units of coinage. The gold dollars of America would very likely be soon equalized with 5-franc gold pieces; and we venture to suggest as deserving enquiry, whether, in the event of this scheme being successfully carried out, 2-florin or 2-rupee pieces in gold might not be advantageously introduced into *India?* They would be the exact equivalent in weight and fineness of the 5-franc gold piece and of the American gold dollar, if that coin were brought into agreement with the others, as it might easily be. This dollar, 5-franc, 2-rupee, or 2-florin piece in gold, might relieve to some extent the exports of silver to the East, if it could only be popularized in India and in China. The exporting commercial community of the latter country have a decided preference for the dollar as a coin of account; and although silver bullion and dollars will very likely be generally wanted rather than gold, really international gold coins might

ſometimes be ſtipulated for as the means of payment, and ſo relieve in ſome meaſure the expenſe of always paying in ſilver.

In the ſecond part of the preſent paper it is propoſed to ſhow that the adoption of a plan for further decimalizing the pound ſterling in a perfect manner below the florin, or $\frac{1}{10}$th of a pound, at which ſtep in the ſcale the matter now reſts, or rather ſtagnates, might advantageouſly be carried out by our Government, in connection and ſimultaneouſly, or nearly ſo, with the international plan of which we have juſt given an outline. The international coinage plan might, however, if it were preferred to do ſo, be carried out quite independently of any further decimalization of the Engliſh coinage, and would ſtill work well, although individually we confeſs a preference to a thorough dealing with the queſtion once for all.

The Convention of the 23rd December laſt between France, Italy, Belgium, and Switzerland, already ſo frequently referred to in theſe pages, is a document of ſuch intereſt that, having been favoured with a copy of its text, we believe that a tranſlation will be welcome to many of our Engliſh readers, particularly as the Convention may be looked upon as a prototype for other ſuch Conventions.

TREATY

Between Switzerland, Belgium, France, and Italy respecting Monetary Union.

The Swiſs Confederation, H. M. the King of the Belgians, H. M. the Emperor of the French, and H. M. the King of Italy, animated alike by the deſire to eſtabliſh a completer harmony between their monetary legiſlation, and to remedy the inconveniences which ariſe in the intercourſe and tranſactions between the inhabitants of their reſpective ſtates from the differences in fineneſs of their ſilver token moneys, and to contribute, by eſtabliſhing between them a monetary union, to the progreſs of a uniformity of weights, meaſures, and coins, have reſolved to conclude a convention to that effect, and have named their plenipotentiary commiſſioners, namely:—

The Swiss Confederation; *M. Kern*, Envoy Extraordinary and Miniſter Plenipotentiary of the ſaid Confederation to H. M. the Emperor of the French; and M. Feer-Herzog, Member of the Swiſs National Council;

H. M. the King of the Belgians; M. Frédéric Fortamps, Member of the Senate, Director of the Bank of Belgium; and *M. A. Kreglinger*, Government Commiſſioner at the National Bank;

H. M. the Emperor of the French; *M. de Parieu*, Vice Preſident

of the Council of State; and *M. Theophile-Jules Pelouze*, Preſident of the *Commiſſion des Monnaies*;

H. M. the King of Italy; *M. Iſaac Artom*, Counſellor of H. M.'s Legation at Paris, and *M. Valentin Pratolongo*, Director, *Chef de Diviſion* at the Miniſtry of Agriculture, Induſtry and Commerce;

Who, after having mutually communicated their reſpective credentials in good and due form, have agreed to the following Articles:—

"*Art.* 1. Switzerland, Belgium, France, and Italy, to be conſtituted into a ſtate of union with reſpect to the weight, fineneſs, model, and currency of their coined gold and ſilver circulation.

"No innovation to be at preſent made in the legiſlation relating to bronze or copper money (*monnaie de billon*) for each of the four States.

"*Art.* 2. The high contracting powers engage not to coin, nor allow to be coined to their pattern, any gold money of other type than thoſe of pieces of 100 francs, of 50 francs, of 20 francs, of 10 francs and of 5 francs, fixed as to weight, fineneſs, allowance and diameter as follows:—

Deſcription of pieces.	Weight. Correct Weight.	Weight. Allowance of weight either in excels or in deficiency.	Fineness. Correct Fineneſs.	Fineness. Allowance of fineneſs either in excels or in deficiency	Diameter.
GOLD.	Grammes.				
100 Francs	32·25806	1 Milliѐm	900 Milli.	2 Milliѐm.	35 Mill.
50 ,,	16·12903				28 ,,
20 ,,	6·45171				21 ,,
10 ,,	3·22580	2 ,,			19 ,,
5 ,,	1·61290	3 ,,			17 ,,

"They ſhall admit without diſtinction into their public treaſuries gold pieces coined, under the preceding conditions, in one or other of the four States, under reſerve, however, of the excluſion of pieces the weight of which may have been reduced, by wear, to $\frac{1}{2}$ per cent. below the allowances above pointed out, or the impreſſions upon which may have diſappeared.

"*Art.* 3. The contracting governments bind themſelves not to coin nor allow to be coined ſilver pieces of 5 francs except of the weight, fineneſs, allowance, and diameter fixed as follows:—

Weight. Correct weight.	Weight. Allowance of weight either in excels or in deficiency.	Fineness. Correct fineneſs.	Fineness. Allowance of fineneſs either in excels or in deficiency.	Diameter.
25 Gram.	3 Milliѐmes	900 Milliѐ.	2 Milliѐmes.	37 Milliмètr.

"They ſhall mutually receive the ſaid pieces into their public treaſuries, under reſerve, however, of the excluſion of pieces the weight of which may have been reduced, by wear, to 1 per cent. below the allowance above pointed out, or the impreſſions upon which may have diſappeared.

"*Art.* 4. The high contracting powers ſhall not coin in future ſilver pieces

of 2 francs, of 1 franc, of 50 centimes and of 20, except within the conditions of weight, fineneſs, allowance, and diameter fixed as follows:—

Deſcription of pieces.	Weight. Correct Weight.	Weight. Allowance of weight either in exceſs or in deficiency.	Fineness. Correct Fineneſs.	Fineness. Allowance of fineness either in exceſs or in deficiency.	Dimenſions.
SILVER.					
2 Francs.	10 Gram.	5 Milliem.	835 Milli.	3 Milli.	27 Mill.
1 ,,	5 ,,				23 ,,
0·50	2·50	7 ,,			18 ,,
0·20	1	10 ,,			16 ,,

"Theſe pieces ſhould be remelted by the Governments which have iſſued them, when they become reduced, by wear, to 5 per cent. below the allowances above pointed out, or when their impreſs ſhall have diſappeared.

"*Art.* 5. Silver pieces of 2 francs, 1 franc, of 50 centimes and of 20 centimes, coined under different conditions from thoſe explained in the preceding Article are to be withdrawn from circulation before the 1ſt January, 1869. This delay is prolonged to the 1ſt January, 1878, for the pieces of 2 francs, and of 1 franc, iſſued in Switzerland by virtue of the law of 31ſt January, 1860.

"*Art.* 6. Silver pieces coined within the conditions of Article 4 ſhall have legal currency amongſt individuals of the State which has iſſued them as far as a limit of 50 francs in a ſingle payment.

The State which has put them into circulation ſhall receive them from its countrymen without limitation as to quantity.

"*Art.* 7. The public treaſuries of each of the four countries ſhall accept ſilver money coined by one or ſeveral of the other contracting States in conformity with Article 4 as far as a limit of 100 francs in a ſingle payment made to the ſaid treaſuries.

"The Governments of Belgium, France, and Italy ſhall receive, upon the ſame terms, until the 1ſt January, 1878, the Swiſs 2-francs, and 1-franc pieces iſſued in virtue of the law of 31ſt January, 1860, and which are aſſimilated in every reſpect, during the ſame period, to the pieces coined under the conditions of Article 4.

"The whole with the reſerves explained in Article 4 relatively to wear.

"*Art.* 8. Each of the contracting Governments engages itſelf to take back from individuals or from the public treaſuries of the other States the ſilver token money which it has iſſued, and to change them for an equal value of current money (gold pieces or pieces of 5 francs in ſilver), on condition that the ſum preſented for exchange ſhall not be leſs than 100 francs. This obligation ſhall be prolonged during two years dating from the expiry of the preſent treaty.

"*Art.* 9. The high contracting powers ſhall not be at liberty to iſſue ſilver pieces of 2 francs, 1 franc, 50 centimes and 20-centimes ſtruck under the conditions explained in Article 4, except for a value correſponding with 6 francs for each inhabitant.

This figure, taking account of the laſt enumerations carried out in each State, and of the preſumed increaſe in the population until the expiring of the preſent treaty is fixed :—

For Belgium, at ... ... *Francs* 32,000,000.
For France, at ... ... ,, 239,000,000.

For Italy, at ... ... *Francs* 141,000,000.
For Switzerland, at ... ... ,, 17,000,000.

"Are to be included in the above ſums, which the governments have the right of coining, the values already iſſued, by France, in virtue of the law of 25th May, 1864, in pieces of 50 and of 20 centimes for about 16 millions.

"By Italy, in virtue of the law of 24th Auguſt, 1862, in pieces of 2 francs, of 1 franc, of 50 cent. and of 20 cent. for about 100 millions.

"By Switzerland, in virtue of the law of 31ſt January, 1860, in pieces of 2 francs, and of 1 franc, for 10,500,000.

"*Art.* 10. The date of coinage ſhall in future be inſcribed upon the gold and ſilver pieces ſtruck in the four States.

"*Art.* 11. The contracting governments ſhall communicate to each other annually the quantity of their iſſues in gold and ſilver money, the ſtate of withdrawal and of re-melting of their old coin, with all the tranſactions and adminiſtrative documents relating to coinage.

"They ſhall likewiſe adviſe each other upon all the facts affecting the mutual circulation of their gold and ſilver coinage.

"*Art.* 12. The right of joining the preſent convention is reſerved to every other State which ſhall accept its obligations, and ſhall adopt the monetary ſyſtem of the union, in what relates to gold and ſilver coinage.

"*Art.* 13. The execution of the reciprocal engagements contained in the preſent convention is ſubordinated, as of neceſſity, to the fulfilment of the formalities and rules eſtabliſhed by the conſtitutional laws of the high contracting powers, who are held bound to ſtimulate the application of them, which they bind themſelves to do with as brief a delay as poſſible.

"*Art.* 14. The preſent convention ſhall remain in force until 1ſt January, 1880. If, one year before this term, it ſhall not have been announced as ceaſing, it ſhall remain obligatory and of full right, during a freſh period of 15 years, and ſo on to follow, from 15 years to 15 years, in default of announcement of ceſſation.

"*Art.* 15. The preſent convention ſhall be ratified, and the ratifications of it be exchanged at Paris, within a term of ſix months, or ſooner if it can be done.*

"*In faith of which* the reſpective Plenipotentiary Commiſſioners have ſigned the preſent convention, and have affixed to it the ſeal of their arms.

"Done in quadruplicate, at Paris, the 23rd December, 1865."

(Here follow the ſignatures.)

The ſucceſsful carrying out of this treaty appears to have been very much due to the talent with which the difficult queſtions connected with a reform of the French ſyſtem of metallic currency have been explained, and remedies ſuggeſted, by the President of the Treaty Conference, *M. Eſquirou de Parieu*, Vice-Preſident of the Council of State, and Preſident of ſome of its ſections, who, in his official capacity, as a Government repreſentative in the Legiſlative Aſſembly, and as an

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* The Swiſs Confederation is ſtated to have ratified the convention within the laſt fortnight, and the ratification of France Italy and Belgium will no doubt follow without delay as ſoon as a law for it can be paſſed.

author of reputation on economical queſtions,* has conſiſtently contended for the policy and advantages of an international ſyſtem of coinage. It muſt be particularly gratifying to him to find that the ſuggeſtions he had from time to time made, whilſt the whole monetary ſyſtem of France was convulſed in conſequence of the effects produced by the gold diſcoveries on her metallic currency, have already received ſo many practical realizations.† Our limits on the preſent occaſion preclude any very detailed ſtatements, but we may appropriately conclude this part of our enquiry with a few notes chiefly derived from a ſtudy of the elaborate articles by M. de Parieu on the monetary queſtion in France, that have appeared in the "Revue Contemporaine" between 1860 and the cloſe of 1865. Our notes will ſimply have reference to the cauſes that, in M. de Parieu's judgment, (with which we entirely concur), imperatively neceſſitate recourſe by the French to the Engliſh ſyſtem of a ſingle ſtandard—a gold one—with no future ſilver coinage, except, as in England, depreciated to a token value, and only legal tender as change for gold to a limited and ſmall extent.

The legal condition of the French metallic currency now reſts upon the double ſtandard, eſtabliſhed by the law of the 7th Germinal, year XI., which decreed that the unit ſhould be a ſilver franc, weighing 5 grammes $\frac{9}{10}$ths fine, but that at the ſame time gold pieces ſhould be coined of 20 and 40 francs, and of the reſpective weights of 155 and 77½ to the kilogramme, $\frac{9}{10}$ths fine. Thus, whilſt it appeared, theoretically, that ſilver was the leading ſtandard, gold was practically decreed to be a collateral and equally binding ſtandard, at the fixed proportion of 15½ to 1. In conſequence, however, of the ſupplies of gold

* We need do no more on this head than refer to M. de Parieu's works on the Property Tax, to his many eſſays on queſtions relating to currency, &c., in the "Revue Contemporaine," and the "Journal des Economiſtes," and to his laſt book, "*Traité des Impots, conſidérés ſous le rapport hiſtorique, économique, et politique en France et à l'Etranger*," 5 vols. 8vo., Paris. 1864, which will probably eſtabliſh its place as the beſt work of reference in any language upon the principles and practice of the ſubjects on which it treats. It is out of print, but a ſecond edition will be iſſued.

† Moſt valuable aid was alſo given to the ſucceſsful carrying out of the Treaty by the ſcientific French Commiſſioner, *M. Pelouze*. It ſhould be noted that the Miniſter of Foreign Affairs (*M. Drouyn de Lhuys*) warmly eſpouſed the idea of Monetary Union at the preliminary meeting which authorized the conference.

from California and Auſtralia, the market value of gold, as meaſured by the market value of ſilver, has approximated more nearly to 15 to 1 than 15½ to 1. Hence the premium on ſilver, which has diſarranged the metallic currency of all countries in which ſilver was either the ſingle ſtandard, or elſe the alternative leading metal of coinage with gold as a ſecond ſtandard.

France, with its vaſt metallic currency, naturally experienced inconveniences of a ſerious character in the proceſs of rapid demonetization of its ſilver currency, and the ſubſtitution of a gold one. In the 8 years, 1852-59, the exports of ſilver from France amounted to nearly 2,506 million francs, whilſt the imports of ſilver during the ſame time were under 1,127 million francs. The balance or exceſs of ſilver exports was, therefore, 1,379 *million francs*, or about £55,000,000. Carrying theſe totals 5 years further (1860-64), although the ratio of the adverſe balance was, from the more and more diminiſhed means of ſupply, a decreaſing one, it had neverthleſs ſwollen the total by a further 313 million francs, making the groſs aggregate exceſs of ſilver exports over imports 1,692 *million francs* (£67,680,000), or a drain of nearly £5,200,000 per annum as the average for the 13 years (1852-64). M. de Parieu, writing in the "Revue Contemporaine" of 25th January, 1866, remarks that for about ten years paſt gold has become the fundamental coin—the baſis of all important tranſactions of ſale and purchaſe—in France; and in point of fact, that the French gold pieces of 20, 10, and 5 francs form, relatively to the national circulation, as compact an aggregate as the Engliſh circulation of ſovereigns and half-ſovereigns. France has eſtabliſhed, like England, a token money for all the ſubdiviſional ſilver coins leſs in value than the ſmalleſt gold coin, the 5-franc piece. But the ſilver 5-franc pieces are entirely eliminated from the French circulation, and until the Engliſh ſyſtem of ſilver token money was adopted, there was a drain, of almoſt as inconvenient a character, of the 2-franc pieces and ſilver coins of lower denominations. The interruptions to trade were moſt ſerious until a remedy was applied. The agio, or premium, on ſilver was reported to the Miniſter of Finance, in 1857, as having cauſed a preſſing ſcarcity of ſilver change in no leſs than thirty of the departments. A majority of the Commiſſion of Enquiry were even in favour of a temporary and exceptional reſtoration of the anti-economical policy of an export duty on ſilver, a

measure which would clearly have failed to produce any but a momentary effect. We cannot, however, be surprised that some panic should have been felt, when the agio on silver was at one time in 1859 as high as 7 per cent. at Marseilles. The ordinary current premium of 25 or 30 per mille gave the holders of silver a very handsome profit in parting with their franc-pieces to refiners and exporters. Debtors had to the fullest extent the power of discharging their obligations in gold. Article 1190 of the Code Napoleon, viewed in connection with the article which precedes it, gave them a clear option: "*le choix appartient au débiteur (d'une obligation alternative, i.e.*, to pay in silver or gold), *s'il n'a pas été expressément accordé au créancier.*"

No French creditors had ever thought of stipulating from their debtors that the payment should be in a particular metal, but they have naturally become anxious at their prospects, in presence of the law of the 7th Germinal, year XI., which leaves all the chances of future profit in the power of debtors, so that the payers of perpetual rents or interest (including the Government), will, under that law, have the power of making payments in silver, whenever that metal, as compared with gold, becomes the cheaper one of the two for the discharge of their obligation. These are the reasons which fortify the position of the advocates in France of a cancelment of the double standard, and of resort, like Russia, Portugal, and the Brazils, to the system of a single gold standard, the unit of which would be the *gold franc*, the weight of which is fixed at 0·3226 grammes, 0·29035 pure gold, and the remaining tenth, or 0·03226, alloy. "*Il faut donc suivre l'exemple donné par l'Angleterre, c'est à dire par le peuple qui entend le mieux et les principes de l'Economie politique et les grandes loix du commerce,*" was the flattering language adopted by the French Commission of 1857.

We ought, in England, to admit that we also have much to learn from France in matters of currency, and to be ready to appreciate the consistent and zealous endeavours of many of her public men, to disseminate sound principles in this question of international coinage, suited, as they really are, to promote the harmony and good-will of neighbouring nations. The Emperor of the French—whose influence on any international question is so deservedly great—is also considered to be very decidedly favourable to an international coinage; and it yet remains to be seen whether, under his auspices, a simple and practicable plan,

such as has been very inadequately sketched in the preceding pages, may not, at no distant date, be submitted for the deliberation of English statesmen. It will doubtless be conceived on a broad and cosmopolitan basis, and in a generous spirit; and offered on such terms, it will, we trust, be received and considered with the attention and favour it so fully merits. The best practical method may perhaps be finally suggested by the appointment of international delegates, *accredited by their respective governments*, to meet at an early period for the complete settlement of the groundwork of a monetary federation between the leading European and American States.

II.

The decimal coinage question has now been nearly half a century before Parliament and under public discussion. The interest at one time actively taken in it has now somewhat waned, but will not the less certainly revive, as soon as a greater quiet in parliamentary and ministerial arrangements shall present a more auspicious occasion for its final settlement.

All who are interested in the international, as well as domestic advantages, to be gained by the projected decimalization of our coins of circulation and of account, are naturally surprised that after so much debate and criticism upon the alleged, but unproved difficulties of carrying out a scheme which has only been partially put into execution by the coinage of florins, and after the large collection of evidence from persons whom the Government invited to give their opinions for and against the suggested reform, Ministers should, one after the other, hesitate to take the required responsibility of carrying out a plan so highly approved by large majorities in Parliament; and that the repeated plea of want of full information should be urged for further adjournment of any positive action in it.

One of the Royal Commissioners on decimal coinage is reported as having stated to the House of Commons, that he did not believe the working-classes would adopt the decimal system. This is probably an entire misapprehension, both of the intelligence generally, and arithmetical quickness specially, of our working classes. If, however, the meaning be that the public should be entirely quiescent in the matter until the working-classes, as a body, initiate an agitation for the altera-

tion of our coinage, they may indeed be deſtined to wait until the Greek Calends! There is, notwithſtanding, and fortunately, too, for the movement in its favour, a large ſection of the working-claſſes of a higher grade—ſcientific, commercial, educational, profeſſional—who would gladly adopt a complete ſyſtem for decimalizing the coinage, if it can be framed in ſuch a way as not materially and violently to diſturb the exiſting admitted conveniences, in ſome reſpects, of our preſent ſyſtem.

With energy enough to diſtinguiſh us pre-eminently amongſt nations as a people of action, our want of adaptability in matters of this kind is alſo ſomewhat notorious. A Miniſter of Finance in Belgium truly ſaid that monetary queſtions remain for ever obſcure to the million (*pour la foule*) in ſpite of the real ſocial importance they poſſeſs. Foreign ſtateſmen, on ſuch grounds, conſider it a duty to lead the way in any uſeful meaſure connected with ſtandards and ſyſtems of currency and metallic circulation, rather than to leave the waiting public to take the reſponſibility of the initiative.

It is unfortunate that by the death of the Prince Conſort we have in England ſuſtained the loſs of a perſonage who, by his high influence and ſympathies for ſocial improvement would have materially aided this very queſtion of decimal coinage in its gradual, but certain, approach to a complete ſyſtem. In the laſt addreſs made by the Prince, to a large public aſſemblage —we refer to his inaugural addreſs to the International Statiſtical Congreſs which met in London in July, 1860—he ſpoke with force and emphaſis upon the difficulties and impediments ariſing from the different weights, meaſures, and currencies of Europe, and at the ſame time (moſt wiſely, as it appeared to us) recommended the retention of the pound as the largeſt (and therefore the most convenient) unit, and as offering with its tenth part, the florin, great advantages, *particularly if further ſubdivided.*

The recent monetary convention entered into by France, Italy, Belgium, and Switzerland—and which has been fully deſcribed in the firſt part of the preſent paper—is very deſerving of public attention in England, and opens a means which the firſt Miniſtry firmly eſtabliſhed in Parliamentary majorities ought to avail itſelf of, to introduce a meaſure for decimalizing the lower denominations of the coinage below

the florin. And the opportunity would be an excellent one, for, at the ſame time, (in the way already pointed out) rendering our coinage international in connection with the countries which have joined the convention, and the other countries which are certain, at no diſtant date, to give in their adheſion to it.

It is propoſed, in this concluding ſection of our remarks, to give (1) a brief memorandum as to the various occaſions when the queſtion has been conſidered by Parliament and Miniſters, &c., with the reſults; and then (2) to offer a ſketch of a ſimple plan to avoid almoſt every difficulty which has been ever urged—with any reaſonable foundation—againſt the entire and eaſy decimalization of the pound ſterling below the florin.

(I.) Brief memorandum of the Parliamentary and public hiſtory of the progreſs of decimalization of the pound ſterling.*

1824.—Sir John Wrottesley moves, in the Houſe of Commons, for enquiry as to the poſſibility of a decimal ſubdiviſion of the pound ſterling into double ſhillings (*i.e.*, what were ſubſequently called florins) and into farthings of 1,000 (*i.e.*, into what are now proposed to be called mils) inſtead of 960 to the pound.	*Reſult.*—Motion oppoſed by the Government on the plea of inconvenience in carrying it out. Advantages of the plan nevertheleſs admitted. Motion withdrawn, on the Government giving a pledge (carried out in 1826) that the currency of Ireland ſhould be aſſimilated with that of England.
1841.—The Aſtronomer Royal (Airy) and ſeven other eminent ſcientific men appointed Commiſſioners for a reſtoration of the ſtandards of weights and meaſures deſtroyed at the fire which burnt down the Houſes of Parliament. They report unreſervedly in favour of a decimal ſubdiviſion of the pound ſterling, and upon the facility of interpoſing between the pound and the ſhilling a new coin equivalent to two ſhillings, to be called by a diſtinctive name, and of conſidering the farthing, now paſſing as the $\frac{1}{960}$th part of a pound, as the $\frac{1}{1000}$th part of that unit, of eſtabliſhing a coin of value equal to $\frac{1}{100}$th part of the pound, and of circulating be-	*Reſult.*—Attention of the public much directed to the ſubject.

* In drawing up this *précis* we have availed ourſelves, to ſome extent, of the particulars given in the Parliamentary report of the decimal commiſſion of 1857. Our limits of courſe compel a very abridged ſtatement.

ſides theſe principal members of a decimal coinage, other coins of values bearing a ſimple relation to them, including coins of the ſame value as the preſent ſhilling and ſixpence.

1843.—A ſecond commiſſion, conſiſting of the ſame commiſſioners as the commiſſion of 1841, with a few additional ſcientific men appointed for the ſame purpoſe.

1847.—Sir John Bowring, M.P., moves for an addreſs to the Crown in favour of the coinage of ſilver pieces of $\frac{1}{10}$th and $\frac{1}{100}$th of the pound.

1853. March.—The commiſſioners appointed in 1843 wrote to Mr. Gladſtone, Chancellor of the Exchequer, ſtrongly urging the Government to iſſue copper coins related to the millennial ſubdiviſion of the pound ſterling, and of the value of $\frac{1}{1000}$th, $\frac{2}{1000}$th, and $\frac{4}{1000}$th of a pound (differing little from the farthing, the halfpenny, and the penny) might be extenſively uſed by the public without preſent inconvenience, while the inſcription of their values, as eſtimated in the decimal ſcale, would afford the means of ſhortly introducing that ſcale throughout the entire ſyſtem.

1853. April.—A ſelect committee appointed to inquire into the practicability and advantages or otherwiſe of a decimal ſyſtem of coinage.

Auguſt, 1853.—Committee report to Houſe of Commons. The pound ſterling recommended as the unit of the new ſyſtem of coinage, "Conſidering that the pound is the preſent ſtandard, and therefore aſſociated with all our ideas of money value, and that it is the baſis on which all our exchange operations with the whole world reſt, any alteration of it would lead to infinite

Reſult.—This commiſſion propoſed that the recommendations of the committee of 1841 ſhould be carried out. The Government took no ſteps, and the matter remained in abeyance until 1847, when Sir John Bowring brought it again before the Houſe of Commons

Reſult.—The Government conſidered that the firſt ſtep in the decimal ſyſtem ſhould be to eſtabliſh a coin equal to $\frac{1}{10}$th of a pound. This was the origin of the modern Engliſh florin, ſtamped *One-tenth of a Pound*, the mintage of which was immediately ſanctioned.

Reſult.—Mr. Gladſtone (in April, 1853) declines on the part of the Government to make any change with reſpect to the copper coinage, and declares that the altering of the value of thoſe particular coins, which are in point of fact the meaſures of value and the baſis of the idea of value of the maſs of the people, was a very ſerious matter indeed, and one which ought not to be undertaken on any mere abſtract opinions and conſiderations without fully aſcertaining that the ground under foot was ſecure, but that the Government would agree to the appointment of a ſelect committee to inquire into the ſubject.

Reſult.—The twenty-five witneſſes examined were unanimous in recommending a decimal coinage, and in fact, with one exception, ſupported the *Pound and Mil Scheme*.

Reſult.—In conſequence of the report of the Parliamentary Committee being unheſitatingly in favour of an almoſt immediate carrying out of the details of the decimal ſyſtem to the coinage below the florin, the matter immediately attracted very great public attention, and many were the diſcuſſions which enſued; particularly as rival plans for diſcontinuing the pound as the future

complication and embarraſſment in our commercial dealings; in addition to which its retention would afford the means of introducing the decimal ſyſtem with the minimum of change." The Committee "having well weighed the comparative merits of the exiſting ſyſtem of coinage and the decimal ſyſtem, and the obſtacles which muſt neceſſarily be met with in paſſing from one to the other, deſire to repeat their decided opinion of the ſuperior advantages of the decimal ſyſtem, and to record their conviction that the obſtacles referred to are not of a nature to create any doubt of the expediency of introducing that ſyſtem as ſoon as the requiſite preparations ſhall have been made for the purpoſe by means of cautious but deciſive action on the part of the Government."

June, 1854.—An aſſociation, called the Decimal Aſſociation, was formed, having for its chief object the eſtabliſhment of the decimal ſyſtem in coins of account and circulation baſed upon the pound and mil ſcheme. The chairman of this aſſociation, the late Mr. Wm. Brown, M.P., had previouſly, in a letter dated Richmond Hill, near Liverpool, 13th December, 1853, addreſſed to Mr. Francis Shand, Preſident of the Liverpool Chamber of Commerce, given an excellent epitome of the leading reſults of the ſcientific and practical evidence printed in the report of the Parliamentary Committee. We regret that our ſpace is inſufficient to admit of the letter being reprinted in full. Two or three paragraphs as to the ability of the poorer claſſes to comprehend the advantages of the ſyſtem, are however ſo appoſite that we are tempted to extract them. "The Duke of Leinſter gave us information, that when the Iriſh currency was changed from 13d. Iriſh to 12d. Engliſh, it was ſoon underſtood by the poor, and no difficulty aroſe with them." "*I am quite ſure that the intelligence and aptitude of* unit were zealouſly put forward by their advocates. The farthing, halfpenny, penny, ten-pence, twenty-pence, four ſhillings, eight ſhillings, crown, ten ſhillings, guinea, were all ſuggeſted as better baſes than the pound ſterling in a decimal ſyſtem. The penny, halfpenny, farthing, and ten-penny ſchemes, were the beſt ſupported of theſe oppoſition methods, but all four of theſe fail by diſturbing the pound ſterling to an impracticable extent, as they make the pound equal to £1. 0s. 10d.

Reſult.—The labours of the Decimal Aſſociation were very ſucceſsful in ſecuring favour from the mercantile and ſcientific communities for the immediate introduction of the pound and mil ſcheme. But, although they waited with very influential deputations on the Chancellor of the Exchequer (Mr. Gladſtone), and on the Premier (Lord Palmerſton), they obtained but ſcanty ſympathy from them, and but little more from the Board of Trade. The following extracts from Mr. Gladſtone's remarks in reply to one of theſe deputations will ſhow the diſpoſition of Miniſters to adjourn the matter indefinitely. The Right Hon. gentleman remarked—"It is true that thoſe people who have ſtudied and paid attention to the queſtion of a decimal coinage are unanimous in recommending it on account of the many advantages it poſſeſſes over all other ſyſtems. Now the people who have ſo ſtudied the queſtion are gentlemen who have been more or leſs actively engaged in commercial purſuits; but the public at large do not ſeem to be acquainted with it. It is, as you are aware, the

the labouring claſſes, readily to comprehend and underſtand any change in the value of our coin and its advantages, are not ſufficiently appreciated. "Dr. Bowring* ſays that his Chineſe ſervant, and a Chineſe boy in his ſervice, by the uſe of decimals, were rapid and accurate calculators. He never knew them to make a miſtake; they were an over-match for him in the uſe of figures, and he never met a Chinaman who had not theſe advantages."

A moſt influential meeting was ſhortly afterwards held at Liverpool. The opinion of the leading merchants of that city was expreſſed in the reſolution "that as the decimal ſyſtem of money and accounts affords great facility, and is more clear, ſimple, and correct than that at preſent in uſe in this country, it is of great importance to the intereſts of trade and commerce that it ſhould be adopted."

The Council of the Decimal Aſſociation, whoſe head quarters were in London, included Lord Stanley, Profeſſor de Morgan, Mr. Crawford, M.P., the late Dean of Ely, and many other diſtinguiſhed men. The Council were untiring in their exertions in diſtributing many thouſands of pamphlets on the enormous maſſes of the community who have immenſe buſineſs to tranſact that muſt guide the Government in the matter. They are attached to the preſent arrangement of the currency, as it admits of the different ſyſtems of diviſors, and is the baſis of all their notions of value."

"It has alſo many facilities of diviſion which you muſt loſe if you abandon it. It is impoſſible for you not to be ſtruck with this—an advantage which takes its origin from the number of factors which a combination of the decimal with the duodecimals give riſe to. With the Government it is impoſſible not to be ſo ſtruck.† Again, it is ſo wound up with the habits of the people that it would not be adviſable to have recourſe to any change in it, unleſs we had clear evidence that it was one the people themſelves required and underſtood. . . I frankly own I am by no means convinced that you can get rid of the penny. . . I would only aſk you, are the people prepared for the change? all I can ſay is, that I cannot take any deciſive ſtep until we are ſatisfied that the ſubject has been thoroughly ſifted, and is well underſtood by the public."

* Now Sir John Bowring—this gentleman has moſt conſiſtently and ably advocated the decimal ſyſtem in his work on the ſubject, as well as in Parliament, and at many meetings of ſcientific bodies. His unwearied exertions deſerve the gratitude of the public. The ſame may be ſaid as to Profeſſor de Morgan and the late Mr. W. Brown, M.P.

† There is nothing very *novel* in this to ſtrike any one. All the nations, except Great Britain, which in ancient days had vigeſimal and duodecimal notation in their currency of account have ſince given it up. Cuthbert Tonſtall, when Biſhop elect of London, printed, in 1522, his learned and elegant treatiſe on Arithmetic, in which he remarked upon the then widely-ſpread cuſtom of keeping *accounts* in twenties and twelves as ſubdiviſions of the nominal pound and ſhilling. We quote from page 272 of the Paris edition of 1529 of the Biſhop's *Ars supputandi*. "Nunc ætate noſtra apud ſingulas pene nationes aurei pro regum aut principum arbitrio varium habent precium; ſic libræ, ſic ſolidi, ut nunc ſunt vocabula; magnam pro regionibus diverſitatem habent. Cæterum illud mirum videtur; quomodo in tanta librarum et ſolidorum æſtimationis differentia, pro ſuo cujuſque regionis more, multæ tamen nationes conſentiunt; ut vulgari lingua ſolidum vocent, quod denariolos duodecim vulgares complectitur, libram quod ſolidos viginti."

decimal queſtion, and in ſtimulating the ſcientific ſocieties of London to receive papers and encourage diſcuſſion on the advantages of the completion of the decimal coinage from the florin downward.

June, 1855.—The late Mr. William Brown moved three reſolutions in the Houſe of Commons:—

1.—That in the opinion of this Houſe, the initiation of the decimal ſyſtem by the iſſue of the florin has been eminently ſucceſsful and ſatisfactory.

2.—That a further extenſion of the ſyſtem will be of public advantage.

3.—That an humble addreſs be preſented to her Majeſty, praying that ſhe will be graciouſly pleaſed to complete the decimal ſcale, with the pound and florin, as ſuggeſted by two commiſſions and a committee of the Houſe of Commons, by authorizing the iſſue of ſilver coins to repreſent the value of the one-hundredth part of a pound, and copper coins to repreſent the one-thouſandth part of a pound, to be called cents and mils reſpectively, or to bear ſuch other names as to her Majeſty may ſeem adviſable.

Reſult.—The firſt of the reſolutions propoſed by Mr. W. Brown, M.P., was carried in the Houſe of Commons by a majority of 135 to 36. The ſecond reſolution was carried without a diviſion. The third reſolution was withdrawn. The Government ſtill maintained the policy of more delay and more enquiry, and (as ſtated by the Decimal Coinage Commiſſioners in commenting on this debate) urged that it was inexpedient to make a change which would ſo deeply affect the intereſts of the *poorer claſſes* * without much more inveſtigation than had yet been given to it, and gave an aſſurance that the ſubject ſhould receive the moſt careful conſideration poſſible.†

1856.—The Decimal Aſſociation immediately ſet themſelves to work to improve the opportunity afforded

Reſult.—A Royal Commiſſion conſiſting of the late Lord Monteagle, Lord Overſtone, and Mr. J.

* It is truly amuſing to note this cuckoo-cry (ſo oft repeated in this decimal queſtion) of the difficulties which the *poorer (!)* claſſes will have to comprehend that the pound ſterling will in future divide decimally into 1,000 mils or new farthings inſtead of the preſent 960 farthings, and that the 4 mil or new penny-piece will in future be as uſeful to them as the deeply-to-be-regretted, never-to-be-forgotten, preſent or old, penny of 4 farthings. The fact is, that Miniſters have hitherto been always anxious to ſhift the burden and reſponſibility of carrying out the change on the ſhoulders of ſome future miniſtry. But Mr. Gladſtone rather upſet his argument (in the remarks by him we have above quoted) when he ſeparated the unanimity of the commercial and ſtudious people who approved the decimal plan, from the "enormous maſſes of the community who have immenſe buſineſs to tranſact and who are to be the Government guides in the matter." The poorer claſſes are of courſe the maſſes, but where is their immenſe buſineſs to ſuffer from the change?

† This kind of aſſurance has been the courteous but really unſympathetic reply of Miniſters to all the deputations on the ſubject at which the writer has been preſent.

by the obviouſly great ſucceſs of the reſolutions moved in the Houſe of Commons by their Chairman. Further interviews took place with the Premier and the Chancellor of the Exchequer.

The City of London preſented to the Houſe of Commons a moſt influentially ſigned petition from its chief citizens and their employés praying that the needful meaſures ſhould be taken to prepare the way for the introduction of a decimal ſyſtem of coinage and accounts. In this petition it was alſo averred that any other mode of decimalizing our currency than from the *pound downward is altogether* impracticable—that the pound conſtitutes an Engliſh national fixed idea of value and poſition, and is aſſociated with every exiſting contract, and every compariſon of paſt revenue, expenditure and price, and muſt be retained.

Petitions were alſo prepared, under the auſpices of the Decimal Aſſociation, for preſentation by ſchoolmaſters and teachers, and by operatives, ſetting forth the educational advantages of the propoſed change.

G. Hubbard, M.P., was appointed on the 1ſt November, 1856, for conſidering how far it may be practicable and adviſable to introduce the principle of decimal diviſion into the coinage of the United Kingdom.*

Theſe Commiſſioners thereupon applied themſelves to the taſk of collecting freſh evidence from witneſſes, and to the preparation of a ſeries of queſtions addreſſed to her Majeſty's Miniſters or Conſular officers in foreign countries where a decimal coinage had been introduced, with the view of collecting information on the previous ſtate of the coinage, the reaſons which led to the introduction of the decimal coinage, the difficulties which had been found to attend the change, the extent to which the decimal coinage had been brought into practical uſe, and the reſult how far ſatisfactory or otherwiſe.

A preliminary report was made in April, 1857, by the three Commiſſioners, and a final report two years later, in April, 1859, by two of the Commiſſioners, Lord Overſtone and Mr. Hubbard, the Chairman of the Commiſſion (the late Lord Monteagle) having reſigned in the intervening period.

The final Report of the Royal Commiſſioners dated 5th April, 1859, includes twelve Reſolutions, nearly all of a moſt diſcouraging character, and adapted to aid any preſent or future miniſter who may deſire to poſtpone the further decimalization of the pound ſterling, during at leaſt the lifetime of the preſent generation.

* This reference to conſider the practicability and adviſability of *introducing* the principle of decimal diviſion into the coinage, is, to our mind, quite inexplicable. If literally conſtrued, it ſhows entire forgetfulneſs of the introduction of the principle, avowedly and diſtinctly nine years before, when, with the approbation of the Crown and Parliament, the florin, or tenth of the pound, was authorized. The ſeven million florin pieces which had been coined from 1849 to 1856, were ſo many material proteſts to the inaccuracy of the terms of this commiſſion.

The following are the Reſolutions:—

"1. That the circumſtances under which decimal coinage has been introduced in foreign countries, although affording both inſtruction and warning to us, differ in many important reſpects from thoſe which exiſt in this country, and therefore no ſafe concluſions for our guidance can be drawn from the examples, more or leſs ſatisfactory, of other countries.

"2. That there appears to be no approach to unanimity of opinion, on the queſtion of the introduction of decimal coinage, in the commercial or other claſſes of the community.

"3. That it is very difficult to come to any uſeful concluſion as to the merits of the decimal principle in the abſtract.

"Diſtinct and peculiar difficulties attend each ſeparate form in which it has been propoſed to introduce the decimal principle into the coinage of the country. A decimal coinage founded on the penny neceſſarily ejects the pound ſterling, whilſt a decimal coinage founded on the pound muſt involve all the inconveniences attending the abandonment of the penny.

"4. That although many important advantages would attend a decimal coinage founded on the penny, as compared with the pound and mil ſcheme, yet that a coinage which neceſſarily involves the diſturbance of the pound ſterling would, in the preſent ſtate of public feeling, be unadviſable, and, in fact, impracticable.

"5. That the pound and mil ſcheme is the only form in which, under the preſent ſtate of public feeling in this country on the queſtion, the introduction of the decimal principle into our coinage can be contemplated with any reaſonable probability of ſufficient ſupport.

"6. That as regards paper calculations there appears to be a preponderance of advantage on the ſide of decimal coinage; but the extent of the ſuperiority in that reſpect may be the ſubject of much difference of opinion.

"7. That as regards the comparative convenience of our preſent coinage and of the pound and mil ſcheme, for the reckonings of the ſhop and the market, and for mental calculations generally, the ſuperiority reſts with the preſent ſyſtem, in conſequence, principally, of the more convenient diviſibility of 4. 12, and 20, as compared with 10, and the facility for a ſucceſſive diviſion by 2, that is, for repeated halving, in correſpondence with the natural and neceſſary tendency to this mode of ſubdividing all material things, and with the prevalence of binary ſteps in the diviſion of our weights and meaſures.

"8. That as regards the comparative convenience of the coins provided by the rival ſyſtems, the advantage appears to reſt with our preſent coinage.

"9. That the particular form of decimal coinage propoſed as the pound and mil ſcheme cannot be looked upon as a well-aſſured or demonſtrated improvement on our preſent coinage; but muſt rather be conſidered as an experiment of very doubtful reſult, accompanied, beyond all queſtion, by many ſerious tranſitional difficulties.

"10. That theſe difficulties are partly of a moral character, ariſing from the violent diſturbance of eſtabliſhed uſages and habits, eſpecially amongſt the uneducated claſſes, which are the leaſt qualified to comprehend, and the leaſt diſpoſed to acquieſce in ſuch diſturbance of their cuſtomary courſe of acting and thinking; and partly of a mechanical character, ariſing from the non-interchangeability of the old and the new coins.

"11. That the advantages in calculation and account-keeping anticipated from a decimal coinage may, to a great extent, be obtained without any diſturbance of our preſent coinage, by a more extenſive adoption of the practice now in uſe at the National Debt Office, and in the principal Aſſu-

rance Offices, viz., of reducing money to decimals, performing the required calculations in decimals, and then reſtoring the reſult to the preſent notation.

"12. That, duly weighing the foregoing conſiderations, it does not appear deſirable, under exiſting circumſtances, while our weights and meaſures remain as at preſent, and ſo long as the principle on which their ſimplification ought to be founded is undetermined, to diſturb the eſtabliſhed habits of the people with regard to the coins now in uſe, by a partial attempt to introduce any new principle into the coinage alone."

During the ſeven years which have paſſed ſince April, 1859, when the Report of the Commiſſioners was made, the "reſt and be thankful tone" of its Reſolutions appears to have been ſufficiently powerful to deaden any further active agitation for a decimalization of the pound from the florin downward. In conſequence alſo of the deceaſe of the late Mr. W. Brown, M.P., the Decimal Aſſociation appears to have diſcontinued its operations, and to have become virtually extinct. We hope, however, that it may revive with increaſed ſtrength and influence, and at an early period, as we are not amongſt thoſe who deem that the ſuggeſted reform will be eaſier accompliſhed at a diſtant date than at the preſent time, particularly as the circumſtances of the recent Currency Convention between France, Italy, Belgium, and Switzerland, and of our Engliſh ſilver coinage being ſo much worn by uſe as to require a ſpeedy remelting, are both favourable to action being taken almoſt immediately.

Of the twelve Reſolutions of the two Royal Commiſſioners there are only two which are really well-founded. The remaining ten are miſtaken concluſions, drawn from imperfect premiſes. The two in which we concur are, No. 5, affirming that the pound and mil ſcheme is the only form in which there would be reaſonable probability of ſufficient ſupport to introduce the decimal principle further into our coinage, and No. 7, which points out the ſuperiority of the preſent ſyſtem of coinage for the reckonings of the ſhop and market, in its more convenient diviſibility of the factors 4, 12, and 20, as compared with 10, and the facility for a ſucceſſive diviſion by 2, that is, for repeated halving.

We have always been under the impreſſion that the Committee which reported to the Houſe of Commons, in Auguſt, 1853, and recommended the withdrawal of the half-crown

the three-penny and four-penny pieces, and the introduction of copper coins of one, two, and *five* mils, and of ſilver coins of 10 and 20 mils, might have made a better choice as regards ſome of the new coins to be introduced.* Their propoſition in favour of the retention of the ſhilling as 50 mils, and of the ſixpence as 25 mils exactly, has been popularized into an indiſpenſable part of the decimal ſcheme. This policy of conciliation, by promiſing to retain *all* our preſent ſilver coins ſo far down as the ſixpence inclusive, has indeed been a policy of weakneſs, as it has opened up a way of attack by the enemies of the whole ſcheme.

The cardinal principle that ſhould be ſtrictly adhered to in all coins of *circulation* of a low enough denomination to be mixed up with the daily, nay momently, life of the whole community, as, for example, is the caſe with the ſhilling and its ſubdiviſions, conſiſts in ſuch coins being arranged according to a ſcale that ſhall admit of the following conditions:—(1.) Of *change* being given wholly in either of two denominations of the lower ſort, ſo as not to require *abſolutely* any mixing up of various ſorts of leſſer coins; and (2.), of change being given by binary ſteps, *i.e.*, ſuſceptible of ſucceſſive diviſion by 2, which is an advantage pre-eminently attaching to our exiſting ſyſtem of coinage.

Such a principle would be entirely loſt in the practical working of the preſent ſhilling and ſixpence, in connection with the propoſed coinage of the lower denominations of 10 and 20 mils in ſilver, and 1, 2, and 5 mils in copper. Change for ſay a ſhilling, or 50 mils, is required. If given in 2-mil pieces it requires 25 of them, a moſt inconveniently large number to count, and leading to loſs of time in the innumerable ſmall tranſactions of daily life. In fact, giving change for a ſhilling would always require, as at preſent, the

* No crowns, half-crowns, or fourpenny pieces have been coined recently, the intention being to gradually let them diſappear from the circulation. The crown is manifeſtly far too big for modern purſes. The half-crown, however, has its friends and ſpecial uſes, and, if the multiplication of the number of coins were not an objection, might very well have been continued with the florin in the new coinage. As the eighth of a pound it falls in conveniently not only with the duodecimal, but with the decimal ſcale alſo.

giver of change to offer one coin of the next denomination (the fixpence) in filver, and the remainder in copper pieces of the fmalleft poffible number. In prefent coinage this change confifts in fix of the penny-pieces of copper, or 12 halfpenny pieces, or a mixed average number, (9) of penny and halfpenny pieces. Thus, it is obvious that change for fixpence in copper* is involved in every normal change of fhillings as well as fix-pences. Here, with 1, 2, or 5-mil pieces, there would be a complete break down. Change in 1-mil pieces, or new farthings, is out of the queftion; in 2-mil pieces, or new halfpence, it would be impoffible, as $2 \times 12 = 24$, or 1 mil wanting. In 5-mil pieces it is eafy, as $5 \times 5 = 25$.

But whilft this one way of giving change is the only way which would be practicable, it is fraught with intolerable inconvenience. In the firft place, the change can neither be halved nor quartered at all, although the fame value; the fixpence now can be, by recourfe to only one denomination of leffer coin for the halving, or one or two denominations for the quartering. In the fecond place, what is, if poffible, a more embarraffing refult, would arife. The 5-mil piece is the moft inconvenient and impracticable copper coin that could poffibly have been devifed for change, as it would be impoffible to halve or quarter it, or to fplit it up at all into any fractions except fifths, made up either by 5 fmall 1-mil pieces, or elfe by two 2-mil pieces and one 1-mil piece.

It has fometimes been fuggefted that 5-mil pieces of new coinage, and 4, 2, and 1-mil pieces (to which laft three, the pence, halfpence, and farthings now current might be declared equal), would anfwer well as fimultaneoufly circulating coins. This would indeed be confufion worfe confounded, as it would much augment the complications and miftakes in giving change, befides introducing two coins nearly alike in value. A metallic currency fhould, in its various denominations, be always readily diftinguifhable, in the night as well as in the daytime, by the fenfe of touch. This alone would be a

* We retain the conventional term copper for our new bronze coinage. This truifm to our Englifh readers is only a proper explanation to our foreign readers.

fatal objection to 4 and 5-mil pieces in the fame circulation, and as to the neceffity for the two on the fcore of convenience, we hold that alfo to be a miftake. For example, if at prefent a "penny farthing" ($1\frac{1}{4}$d.) is made up of 2 coins, what hardfhip would there be in the payment of 5 mils, alfo requiring 2 coins, a 4 and a 1-mil piece?

We may now afk, is no fcheme poffible, which, whilft it fhall preferve intact the vaft fuperiority of the pound and mil over every other plan that has yet been recommended, will, at the fame time, *fecure the chief benefits of the binary divifion and fubdivifion of coins to which this country is accuftomed?* Our anfwer to this is, that we fully believe fuch a fcheme poffible, and that its prompt adoption is both expedient and politic.

In our explanations we fhall have to travel a little over the fame ground acrofs which our remarks have led us, namely, to enlarge, by way of more adequate illuftration, on what, fince the publication of the report of the two Royal Commiffioners, has gradually to a great extent indoctrinated itfelf into the public mind, as to the great advantage in the fmall tranfactions of every-day life, of having coins divifible like the fhilling, fixpence, and penny, by 4, 3, and 2 fucceffive halvings refpectively, inftead of having coin like the franc, half-franc, and two fous, divifible only by two halvings and one halving refpectively.

Nothing can be truer than that, in the minute, ever-recurring wants of life, it is moft important that we fhould have as many factors and divifors as poffible of the fmall coins of circulation. On this groundwork the pound and mil fcheme fets out with an immediate advantage to the poorer claffes, in fecuring to them a one-thoufandth inftead of a one nine hundred and fixtieth divifion of the pound, a fiftieth inftead of a forty-eighth divifion of the florin, and fo on with the lower denominations of coin. So far well, but directly we come to dealings with 50 mils and 25 mils, (the new names for the worth of the prefent fhilling and fixpence), we have reafon for furprife at their retention as coins of *circulation*, having been hitherto recommended by the advocates, in and out of Parliament, of the pound and mil fcheme. It has already been explained, that to give change for a fhilling or fixpence in mils, would occafion intolerable difficulties and lofs of time. It is equally plain that halving and quartering

of 50 and 25 mils is alſo impoſſible, ſo far as coins of circulation are concerned.

Why then retain the ſhilling or the ſixpence as coins of *circulation*, when, as is well known, they would *not* be coins of *account* in the complete decimal ſyſtem, the ſteps in which are excluſively referred to the $\frac{1}{1000}$th, $\frac{1}{100}$th, and $\frac{1}{10}$th of a pound ſterling—in other words, to the mil, cent, and florin?

Our anſwer to ſuch a queſtion would moſt unheſitatingly be, *that the ſhilling and the ſixpence ſhould be aboliſhed as coins of circulation in the decimal ſyſtem, becauſe ſomething better could be ſubſtituted for them, and that the only properly conſtituted coins of circulation that ſhould in future be ſtruck at the Mint are:—*

		GOLD.	
Sovereign	=	1,000 Mils ...	(to be ſo marked.)
Half Sovereign	,,	500 ,, or ...	$\frac{1}{2}$£ ditto.
Quarter Sovereign (?)	=	250 ,, ,, ...	$\frac{1}{4}$£ ditto.
		SILVER.	
Florin	=	100 Mils, or...	$\frac{1}{10}$£ ditto.
40-Mil Piece	,,	40 ,, ,, ...	$\frac{1}{25}$£ ditto.
20-Mil Piece	,,	20 ,, ,, ...	$\frac{1}{50}$£ ditto.
10-Mil Piece (cent.)		10 ,, ,, ...	$\frac{1}{100}$£ ditto.
		COPPER. *(Bronze).*	
4-Mil Piece	=	4 Mils, or...	$\frac{1}{250}$£ ditto.
2-Mil Piece	,,	2 ,, ,, ...	$\frac{1}{500}$£ ditto.
1-Mil Piece	,,	1 ,, ,, ...	$\frac{1}{1000}$£ ditto.

Of courſe it would take a few years for the new coinage to be ſtruck at the Mint, and in the meanwhile there could be no objection, as a temporary meaſure, to the ſhilling and ſixpence circulating.

The 40-mil ſilver piece would be exactly equal to $\frac{2}{5}$ths of the preſent ſhilling, and, as it could be evenly divided, without fractions, by the factors 2, 4, 5, 8, and 10, it would be *more convenient* than the preſent ſhilling, which can be evenly divided without fractions by one factor leſs, viz: 2, 3, 4, and 6, or, with fractions, by 8.

The 20-mil ſilver piece would be exactly equal to $\frac{2}{5}$ths of the preſent ſixpence, and as it is evenly diviſible, without fractions, by 2, 4, 5, and 10, it would be more convenient than the preſent ſixpence diviſible evenly by 2 and 3 only, or, with fractions, by 4 and 8.

The 10-mil ſilver piece would be equal to $2\frac{1}{2}$d. and $\frac{2}{3}$ths of

a farthing, of preſent coinage, or a fraction under $2\frac{1}{2}$d. It would alſo be equal to exactly $\frac{1}{10}$th of the preſent florin or two-ſhilling piece, or $\frac{1}{9}$th of the preſent ſhilling. The coinage of this piece, to be called a cent, as recommended by the Parliamentary Committee, &c., is of the utmoſt importance in completing the decimal ſyſtem, as it would be both a coin of circulation and a coin of account. It is not, however, a coin capable of being converted conveniently into ſmaller change, except as five 2-mil pieces, and its diviſion into two parts requires the uſe of the ſingle mil coin with the 4-mil, juſt as the threepenny-piece, our ſmalleſt ſilver coin at preſent, requires the halfpenny as well as the penny. But this is not of much moment, as the ſmalleſt coin of circulation in ſilver is moſtly uſed in dividing the larger ſilver coins, and ſo ſmall a coin as 10 mils, is, like the threepenny-piece, vaſtly leſs uſed than the copper pieces by the poor.

We ſuggeſt the above deſcribed ſeries of ſilver coins of circulation, as one which preſents, to the fulleſt poſſible extent, all the advantages of diviſibility that diſtinguiſh the preſent ſyſtem, with other peculiar conveniences. They come nearer to 10 pence, 5 pence, and $2\frac{1}{2}$d. of preſent coinage, which ſome will deem a more conſiſtent effect in a decimal coinage, than is obtained by coins equal to 12, 6, and 3 pence; there will be no difficulty in changing a preſent ſhilling or two ſixpences into the new denominations of coin as they get into circulation from the Mint. Thus, ſeveral combinations of ſmaller ſilver coin will make a ſhilling; for example, 5 of the 10-mil pieces, 2 of the 20-mil pieces with 1 of the 10-mil pieces, or 1 of the 40-mil pieces and 1 of the 10-mil pieces. The change of a ſingle ſixpence is, however, more complicated, as copper equal to 5 mils muſt be added to the two 10-mil or one 20-mil pieces. But, it muſt be recollected, that the Gordian knot could here be moſt readily cut by the ſixpenny pieces being the *firſt* called-in coin by the Mint, as the current ſixpences are worn ſo thin as to be ſomewhat diſcreditable to our preſent currency.

Having thus completed our explanations as to the ſilver money, there remains little to be ſaid as to the decimal copper (bronze) coinage. The 4, 2, and 1-mil pieces, *i.e.*, the $\frac{1}{250}$th,

$\frac{1}{500}$th, and $\frac{1}{1000}$th of a pound will compare moſt beneficially, as regards the poor, with the preſent penny, halfpenny, and farthing, the $2\frac{1}{40}$th, $\frac{1}{480}$th, and $\frac{1}{960}$th of a pound. Their equal diviſibility by 2 and by 4, and the fact that the leſſer value (by 4 per cent.) of the new propoſed, as compared with the preſent copper coins, will often be a ſaving and a gain to the thrifty and the needy, ought to commend the ſcheme to the notice of philanthropiſts and ſtateſmen. As to difficulties about tolls and penny poſtages, and railway mileage, they can all be got over by fair adjuſtment and conceſſions. We will not libel the intelligence of the poor by aſſerting that *they* will have any difficulty in comprehending how to count in mils, or new farthings, inſtead of in ſhillings and pence. The impediments to the ſcheme being popular would entirely vaniſh if the friends of decimalization of our coinage, and, through that, of our weights and meaſures, could be induced to *unite* in ſupporting the ſcheme, of which an outline has now been imperfectly ſketched. We entreat them to abandon at the outſet the notion of coining a 5-mil piece. It has no more and no leſs conſiſtency with the decimal ſyſtem than the 4-mil piece, and we contend we have fully proved the ſurpaſſing advantages of the 4-mil piece, and its ſubdiviſions of 2 mils and 1 mil.

In concluſion, we have to point out to thoſe of our readers who have done us the honour to peruſe the firſt as well as the ſecond part of this paper, that whilſt we would earneſtly hope that the decimalization of our coinage in Great Britain and all her Colonies may, in the cauſe of education and of progreſs generally, be promptly carried out as a national meaſure, ſeparately conſidered, it can at the ſame time be made an international meaſure, in concert with France, by joining the Convention of December, 1865, in the way deſcribed in our previous remarks. By this means the ſovereign would become exactly equal to 25 francs, the half ſovereign to 12·50 francs, the florin to $2\frac{1}{2}$ francs, the 40 mil-piece to 1 franc, the 20-mil piece to 50 centimes or $\frac{1}{2}$ franc, the 10-mil piece to 25 centimes or $\frac{1}{4}$ franc, the 4-mil piece to 10 centimes or 2 ſous, and the 2-mil piece to 5 centimes or 1 ſou.

F. H.

30, Palace Gardens Terrace, Kensington.
1ſt March, 1856.

END OF
TITLE